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A SUMMARY OF LAVOISIER'S PROPOSALS FOR TRAINING IN SCIENCE AND MEDICINE

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Lavoisier, father of modern chemistry, was repeatedly charged by the French National Convention with the duty of drawing up many reports on the encouragement of invention and industry. In July, 1793, he was asked by the convention to formulate a plan for the organization of an educational system for his country.

Lavoisier was unusually well-fitted for this assignment by reason of the universality of his interests, the breadth of his general culture, his wide knowledge of social conditions, his zeal for national betterment and his personal interest in the diffusion of education, as shown by his establishing a primary school, which he supported from his own pocket, near his Fréchines estate.

From Locke, founder of sensationalist philosophy and psychology, Lavoisier (probably via Voltaire) in part acquired the *tabula rasa* theory (the infant mind—a blank page) with which he begins his report to the Convention. From Locke, also, he could have drawn at least support for his conviction that the process of instruction should be made as pleasant as possible and that the natural playful activity of children has high educational value. Locke, however, was indifferent to the education of the children of the poor, while Lavoisier was not. From the writings of Voltaire, who had helped create a wide interest in the sciences in France,

he may have first drawn the idea of a system of public education for his country, with emphasis upon the sciences, as well.

Lavoisier must likewise have been influenced by the theories of the widely influential Rousseau, who was deeply impressed by the great educational benefits to be derived by a child from close contact with nature. With Plato, Rousseau held that social and moral ideas could best be taught by the "object lesson" through direct sensual contact of the learner with the thing to be learned. From Rousseau, Lavoisier learned to take account of the natural order of development of the abilities of children and scheduled his program of studies accordingly. From him he borrowed the nature-as-a-great-teacher theory.

Rousseau's theories had a tremendous impact upon his contemporaries. In 1763 La Chalotais proposed the idea that for poor and rich alike, education was a function of the state, holding that in the struggle for existence "the most enlightened people would always have the advantage." Lavoisier accepts this proposition in his report to the Convention, as he does the theory that education "could not be too widely diffused" and that every person ought to have "the education which is adapted to his needs," words spoken by Roland, who had earlier proposed a universal state-supervised national system of education. To Roland's theories Turgot added emphasis upon training for citizenship as the very basis for education in the sciences. This, too, Lavoisier accepts. From Diderot, who had drawn up a plan for Catherine II of Russia for the education of her people, he could have drawn the ideas that education should be compulsory and full in its offerings in science and mathematics, and that a government's highest function is the welfare of its common people.

The temper of Lavoisier's times was reflected by the Constitution of 1791, which now required the establishment of a "system of public instruction common to all citizens, and gratuitous, with respect to those branches of public instruction which are indispensable for all men." Pursuant to this requirement Talleyrand proposed a state system of public education consisting of free primary schools in each "community," open even to the hitherto educationally neglected children of peasants and workingmen, secondary schools in each *département* not free of charge, but providing scholarships for the bright children of the poor, special pre-professional schools in certain cities, and over them all, in Paris, a National University. Talleyrand was conscious of the need for an educated electorate as the basis for the exercise of legislative power by the people in order that representative government should survive and flourish. Bowing to Lavoisier's high standing and public influence, Talleyrand

asked him to criticize his plan and offer any possible help. Lavoisier thus became acquainted with Talleyrand's proposals.

Two major sources of influence upon Lavoisier's educational thought remain to be mentioned—the thoughts of Condillac and Condorcet.

Starting from Locke, Condillac worked out a system of pure sensationalism and, as an educational philosopher, placed emphasis upon the early training of the reasoning processes, rather than upon memory work. He valued " observation and experiment " instead of " verbal instruction." Lavoisier makes heavy draughts upon these ideas. It is in fact impossible to move through Lavoisier's *Reflections on Public Instruction,* as his report was called, without constantly encountering instances of Condillac's thought.

Finally, it is to Condorcet, " enemy of Kings " and believer in the " infinite perfectability of man," that Lavoisier owes a debt for help on the practical side of his plan. In April, 1792, Condorcet proposed a plan for a national system of education now regarded as a landmark in educational thought. Starting from his proposition that " Public education is a debt that Society owes to all citizens," he develops a plan which provides for the fullest development of the talents of each person and thus for the political equality spoken of in the law of the land. This way lies the development of an intelligent electorate and a good and just society. Women must be given the same educational opportunity as men, for an ignorant woman is fit neither for wifehood nor motherhood. (François Fénelon, 1651 to 1715, had earlier urged education for girls.) Condorcet emphasizes the sciences instead of the classics. He proposes four types of schools, all free of charge and open to both sexes. Here was the most liberal plan of all. The " primary " school would provide four years of elementary education and the " secondary " four more, including mathematics, natural history, applied chemistry, ethics, and commerce. A library and museum were to be attached. The third school (" institute "), corresponding to our high school, would emphasize science and technology, or the mechanical arts. Next would come the *lycée,* the present-day university, comprising professional schools, with all faculties, except theology. At the top would be a " National Society of Arts and Sciences " to supervise the system. Modern French education owes much to Condorcet's proposals which underlie the reforms brought about by the Convention, Napoleon I, Guizot in Louis Philippe's time, Duruy in that of Napolen III, and Ferry and Buisson during the 1880's.

Lavoisier, too, emphasizes science and introduces the idea of a new type of school—the vocational school. His plan, so similar to that of Condorcet,

is worked out in great detail. It shows a strongly rooted and broad humanitarianism and a deep consciousness of the conservationist ideal. It also shows Lavoisier at his eloquent best.

The request for the plan had come from one of the creations of the Convention, a group known as the "Bureau of Consultation on Arts and Crafts," of which Lavoisier was a member. This body decided in July, 1793, probably at the urging of Hassenfratz, that a system of public education for France should be established, and that by this means young people should be prepared for their various callings in life. The Bureau appointed a Commission, consisting of Lavoisier, Fourcroy, Desaudray, Hassenfratz and Borda, which in turn delegated Lavoisier to draw up a report on the subject. The result was his *Réflexions sur l'instruction publique,* his most important contribution to the Bureau and the only one published while he was yet alive. Although published without the name of the author, this memoir was entirely his own work.[1] In it he stated his educational philosophy and aims. He also set up a projected decree for a specific plan,[2] with various curricula, which the members of the committee eventually helped work out in debate during the weeks of late July and all of August, making reductions in his emphasis on general primary education for young children, but leaving almost unchanged the plan for technical education as such. The Bureau received the plan well, then made further modifications, after which it presented copies of memoir and projected decree to the Committee of Public Instruction of the Convention. On October first the Committee of Public Instruction, by special vote, gave this work of the Bureau an honorable mention. The Bureau voted down a later motion to bring the plan to the Convention, sidetracking this meritorious and interesting work and allowing it to pass into eclipse.[3]

The table appended to this study differs in six places from the version produced by the deliberations of the Committee of Public Instruction.[4] Lavoisier himself, in his own handwriting, made these changes in the version approved by the Committee; his version (the present table in this study) is given in Grimaux: *"Oeuvres de Lavoisier,"* Paris, 1893, Vol. VI, pp. 532-535.

His changes consisted in adding: 1) painting and sculpture at all

[1] Edward Grimaux: *Lavoisier,* Paris, 1899, p. 247.

[2] Duveen and Klickstein: *A Bibliography of the Works of Antoine Laurent Lavoisier,* London, 1954, p. 307.

[3] James Guillaume: *Procès-verbaux du comité d'instruction publique de la Convention Nationale,* Paris, 1894, vol. 67, part 2, pp. 457-458.

[4] *Ibid.,* pp. 896-901.

lycées, not merely the one at Paris; 2) gymnastics to " elements of military arts "; 3) drawing, 4) geometry and mechanics, 5) physics and mechanics, all as applied to the arts, at the institutes; and 6) physical geography to geology, at the *lycées.* We thus see Lavoisier as the prime mover of his Committee, with the writing of both memoir and project of decree, in the main, to his credit, even though the other members exerted revisional influence. The changes in the tables make clear the large measure of his responsibility for this report on education. Yet one should not fail to mention Lanthenas whose plan for compulsory education is not named, but understood, in Lavoisier's report, nor Lepeletier, who advanced the idea of a national system of education common and equal for all, nor the ideas of Sieyès-Daunou.[5] Modern educational philosophy is in close agreement with Lavoisier at many points—his recognition of individual differences, the importance of science in the curriculum, the duty of society to provide education for all, and the social benefits accruing therefrom, the modernization of text books, the concept of student government, disciplining of young offenders, etc. His ideas show marked originality and our own times have not yet seen some of them put into operation.

Herewith is presented in tabular form a translation of Lavoisier's own summary of this plan.[6] He proposes four types of schools: 1. *primary school,* for all children entering at the age of six; 2. *elementary school* of the arts and social economy, including homemaking and nursing for girls, and machinery and mathematics for boys—children entering at the age of eleven; 3. *institute* or elementary school of sciences and arts (the present day French secondary schools and colleges); 4. *lycée,* or school of arts and sciences (modern French university departments.)

The primary school was to include simple scientific studies in meteorology, geography, astronomy, economic botany, and hygiene.

Elementary schools were to add simple ideas of physics, natural history, and agriculture.

The institute would offer courses in experimental physics and chemistry, and natural history of the animal, vegetable and mineral kingdom, elements of anatomy and obstetrics, veterinary art, hygiene and medicine, agriculture, industrial physics and chemistry.

The *lycée* would offer experimental physics and chemistry, mineralogy, physical geography, geology, botany, zoology, vegetable-physics, entomology, mechanics, hydraulics, celestial mechanics, geography, astronomy,

[5] James Guillaume: "Les idées de Lavoisier sur l'instruction sociale de l'enfance," *L'Ecole Rénovée,* 1909, *1*: 23-30.

[6] *Oeuvres de Lavoisier,* 6 vols. Paris, 1862-93: Vol. VI, pp. 516-558 ("Reflections on Public Instruction").

hydrography, anatomy, physiology, comparative anatomy, pharmacy and materia medica, theory of medicine, practice of internal and external medicine, obstetrics, diseases of women in childbirth, children's diseases, history of medicine, hygiene, veterinary art, agriculture, mine development, metallurgy, military and naval science, industrial physics and chemistry.

At the top of the system Lavoisier, like Condorcet before him, proposed a National Society of Sciences and Arts, membership to be held by the most eminent scholars, whose duty it would be to work for the advancement of learning within France, to award grants and pensions to scientists and teachers who had distinguished themselves in the uncovering and application of useful knowledge, and to communicate with foreign learned societies.

As a groundwork for his report he details a child's developing interest in his world, with the passage of his early years. Concurrently Lavoisier discusses the significance of these developing interests from the standpoint of education in the basic sciences. It is all put down, and expanded neatly into a complete study and a set of proposals having the length of 42 quarto pages. Attention is given to the inculcation of the principles of liberty, equality, justice, humanity, charity, ethics, patriotism and good citizenship. The text books to be used come in for wise consideration.

At his institute (high school-college) and *lycée* (university) four disciplines would be offered, one being the mathematical and physical sciences. Equipment would include library, scientific apparatus, and botanical garden. The great *lycée* at Paris (*Lycée Nationale*) was to comprise six branches or "museums," one of which, located at the *Collège des Quatre Nations,* was to be devoted to the mathematical and physical sciences and also serve as a museum for the exhibition and demonstration of mechanical inventions. Astronomy would be offered at the *Observatoire de la République.* Biological sciences and geology would be taught at the *Jardin des Plantes* (to be renamed "*Muséum d'Histoire Naturelle*"). Finally medicine, anatomy, surgery, veterinary surgery, midwifery, and pharmacy would be available at "*Les Ecoles de Chirurgie.*"

The faculty of the institute was to hold public meetings at which learned papers would be read. (The organization of the National Society of Sciences and Arts, recruited from among France's most distinguished scientists, has been referred to above.)

Lavoisier did not live to see his plan put into operation, but history was to render a very favorable verdict, his plea for extensive education in the sciences, both for the training of scientists and as a basis for the arts, eventually proving very timely and valid. Referring to the institutes and

lycées, he points out that where no special professor is assigned, the subject will be taught by the professor whose duties are most closely allied. No consideration is given in the table to the areas of ethical and physical training. Where a bracket encloses two or more subjects, it was Lavoisier's intention that the entire group embraced should be taught by one professor, except for "Practice of internal and external medicine," to which two professors were to be assigned.

The medical aspects of Lavoisier's educational proposals are of great interest. Paris, between the years 1770-1800, was a great scientific center —the city of LaPlace, D'Alembert and Lavoisier, where wonderful opportunities for professional training existed. However, advances in the basic sciences had left medical education and practice far behind. Medicine, lacking a Lavoisier, was not taking the giant strides forward so notable in the physical sciences, and it seemed that the greater the progress in the latter, the more pointed its lack in the former. Famous writers had taken to jesting about, and ridiculing the art of medicine.[7] Hitherto subjected to minute regulation by the authorities, medical education had now entered an era of anarchy, by virtue of the unlimited freedoms allowed by the revolution. Although doctors were active in politics, seventeen being members of the National Assembly[8] and thirty-nine of the National Convention of 1792,[9] there was so little respect for physicians that the Terror succeeded in executing 104 doctors and banishing from France 328 physicians and 540 surgeons.[10]

Small wonder that Lavoisier must have felt that medical education was in need of reform.[11] Although there were eighteen medical schools in

[7] Cf., Richard H. Shryock: *The Development of Modern Medicine,* New York, 1947, p. 150: "Everyone repeated the reasonings of Montaigne, the jests of Molière or the whims of Rousseau."

[8] Among others: Guillotin (to whom is incorrectly ascribed the invention of the decapitating machine), Gallot, Blin, Salles, Beauvais de Preaux.

[9] Bardillon, Panvilliers, Eschasseriaux, Fourcroy, Baudot, Levasseur the obstetrician, La Coste, Marat, etc.

[10] Arrests were made while doctors were in the midst of their duties. Pierre Desault, the celebrated surgeon, was "dragged" out of his clinic, before the very eyes of his students, but Fourcroy, supported by the press, obtained his release.

[11] Judged by the long, thorough-going and laborious training of our own day, medical education seems to have been, in Lavoisier's time, easygoing and superficial. Gilbert Chinard in his "Life of a Parisian Medical Student in the Eighteenth Century," *Bull. Hist. Med.,* 1939, *7*: 374-380, gives us an intimate account of the life of a French medical student by the name of Pierre Desforges (1746-1806). Desforges tells in vivid fashion of the fact that there was time in his student days for three hours daily of ball-playing, reading, drawing, the theatre and so on. There was, too, a "distinction . . . between the formal and routine courses and the special lectures given by the 'docteur,'"—a Dr. Petit, who, "after being appointed 'professeur extraordinaire d'anatomie au Jardin du

France, only two, those at Paris and Montpellier, enjoyed high regard. French medical education was rated inferior to that of other lands, and French hospitals, because of their unsanitary condition, were in ill-repute. A bill was therefore introduced in 1790, which would have made a great improvement. The French language was to be used both in teaching and examining, professors were to enjoy perfect freedom in teaching, lectures to be gratis and the duration of studentship not to be fixed. Professors were to be appointed on the basis of competition. The eighteen medical schools were to be replaced by four—Paris, Montpellier, Bordeaux and Strasbourg, each to have at least twelve professorships, and in addition, in every *département*, a lower order of medical school associated with the hospital. But the bill never came to debate. Instead, on August 18, 1792, laws were passed abolishing all university faculties and medical schools. Thus, it was hoped, society would return to a primitive state, and eventually to the conditions of ancient Greece. A period of superstition and quackery now followed, in which the mistakes of scientific medicine were lampooned and the medical profession indicted. A speaker before the National Convention went so far as to propose "that doctors should be dealt with like priests—both alike being mere jugglers."

Disaster, however, was soon to change the attitude of the Convention. Within a period of eighteen months the army lost six hundred doctors, and in the eastern Pyrenees there was no medical care for the soldiers. A law was therefore passed on December 4, 1794, establishing three medical schools—in Paris (at the *Ecole de Chirurgie*, as Lavoisier had suggested), Montpellier, and Strasbourg.[12] These were called *écoles de santé*. (Lavoisier's proposals bear the date, August, 1793.) The course was of three years' duration and the costs were defrayed by the state, but the need for trained physicians led to the admittance of civilian, not state-supported, students. The reorganization of 1796 [13] established the twelve

roi' in 1768, . . . opened a public course officially on obstetrics, but in fact covering the whole field of internal medicine . . . before an audience of more than eight hundred students and auditors."

The compulsory lectures were boring, but as to the teaching of anatomy as a regular part of the curriculum, he says:

"Je ne regarde nullement comme perdu le temps que j'ai employé à étudier la belle science de l'anatomie, et il y avait bien longtemps que j'avais dit . . . qu'un cours d'anatomie manquait à notre système d'éducation, et qu'il était aussi essentiel au corps qu'un cours de morale l'était à l'ame. . . ." (I do not at all regard as lost the time I have spent in studying the fine science of anatomy and I had long since said . . . that a course in anatomy was lacking in our system of education, and that it was as essential to the body as a course in ethics was to the soul. . . .)

[12] At Paris there were 300 students, at Montpellier 150, and at Strasbourg 100.

[13] By 1799 the Medical School of Paris had become famous and had 1500 students on roll.

professorships at Paris, listed in the left column below.[14] In the right column appear the courses previously proposed by Lavoisier.

Law of 1794-1796	*Lavoisier's Proposals—1793*
1. Anatomy and physiology	1. Anatomy, physiology and comparative anatomy
2. Medical chemistry and pharmacy	2. Chemistry; pharmacy and materia medica
3. Medical physics and hygiene	3. Physics; vegetable physics; hygiene
4. Surgical pathology	4. Surgery
5. Pathology of internal diseases	5. Practice of internal and external medicine (Lavoisier may have meant # 4, 5 and 11 to include pathology)
6. Natural history in its bearings on medicine	6. Mineralogy, botany, zoology, entomology, geology
7. Art of surgical operations	7. See # 4 above
8. Clinical surgery	8. See # 4 above
9. Clinical medicine	9. See # 5 above
10. Clinic de perfectionnement (This was a period of hospital internship, and was an innovation)	10.
11. Obstetrics	11. Obstetrics; diseases of women in childbirth, and children's diseases
12. History of medicine and forensic medicine	12. History of medicine

It is worthy of note that Lavoisier made this early recognition of gynecology and pediatrics, which Guillotin had proposed two years earlier.

While it is true that Lavoisier's proposals do not seem to have placed as much emphasis upon surgical courses, his training plan was at least as comprehensive, in other respects, as that enacted in 1794-1796. At Strasbourg, for example, where, before Lavoisier's proposals, there had been only three main chairs, one in botany, materia medica and chemistry, one in pathology and internal clinic, and one in anatomy and surgery, after the reorganization there were ten professorships, the curriculum consisting of the studies suggested in his plan with the addition of forensic medicine, meteorology, and prophylaxis.[15]

Fourcroy had become advisor on education to the government of the revolution. As Lavoisier's colleague on the Committee on the Arts and Crafts he had known well, and was now able to advance, Lavoisier's plan of 1793. Fourcroy's report to the Convention on the reorganization of

[14] Theodore Puschmann: *History of Medical Education*, London, 1891, pp. 535 *et seq.*

[15] The spirit of medical education had now changed. Concentration turned away from text books and toward the patient.

medical education appears in the official journal *Le Moniteur,* 16 Frimaire, an III (December 7, 1794) No. 76, pages 320-321. In this report Fourcroy speaks of the improvement in French education made by the National Convention and of the advantages which will accrue therefrom. He then reviews the sad state of medical education in France, the new situation created by the closing of the medical schools, and the neglect of the sciences basic to the study of medicine. He points out that a start toward the rehabilitation of these schools could be made by putting to use certain buildings in Paris and the equipment already owned by the Republic. To study medicine and surgery apart from each other " is to abandon theory to the frenzy of the imagination," to combine them is to " favor their progress." There will be specialization in surgery for those who wish it, but there will be an end to the " ridiculous distinction between two arts which nature commands to be inseparable." The new medical curriculum should embrace courses in practice as well as theory, in chemistry, anatomy, and surgery. Observation at the bedside of patients (medical internship), hitherto lacking in the training of doctors, will become a major part of the curriculum—the *Hospice de l'Humanité* to be used for instruction in external diseases, the *Unité* for internal diseases, and the *École* for rare and complicated cases.

The decree resulting from this report embodies the following:—

Medical schools will rise in Paris, Montpellier and Strasbourg. The curriculum will include the structure and organization of the human body, symptoms of illness, curative agents, plants and drugs, medical chemistry, surgery, finally the duties of health officers. Students will have practice in the manipulations of chemistry, anatomy, and surgery. They will observe the sick and the method of treatment of illnesses. The three medical schools will each have a library, anatomical and surgical supplies, and other equipment. The one at Paris is to have a librarian. The professors and their assistants are to carry on research in anatomy, surgery, and biochemistry. The students are to be from 17 to 26 years of age and selected (in a prescribed way) upon the basis of good citizenship and the excellence of their knowledge in one or several of the sciences requisite to medicine, such as anatomy, chemistry, physics, or natural history. They will receive the pay of artillerymen, first class. The course will be of three years' duration.

The supervision of education in medicine, surgery, and pharmacy, and the manner of compensating the professors who have rendered services but are now incapable of continuing their activities by reason of age and infirmity, will be the responsibility of the Committee of Public Instruction.

These are the provisions of the law of 1794. The similarity to Lavoisier's proposals will be at once evident.

Earlier (November 25, 1790), Félix Vicq d'Azyr (1748-1794),[16] member of the French Academy and the Royal Society of Medicine, had presented to the National Convention a 150 page study, containing proposals for reform in French medical education, practice (including public health), law, and veterinary science, and among other things, advancing an argument for combining schools of surgery with those of medicine, so that medical students might understand surgery and surgeons understand medicine.

D'Azyr first indulges in a broad view of the organization of French arts and sciences, proposing a great encyclopedic institution in Paris to be devoted to directing the advancement of learning on the one hand and to its dissemination on the other. He proposes the locating of an educational site near the place where the subject has reached its highest development—for example the arts and sciences which comprise navigation should be taught in the ports and maritime towns of France, metallurgy near the mines, fine arts at the Louvre in Paris, medicine in the hospitals, natural history at the *Jardin des Plantes,* etc.

Turning to the main subject of his essay, French medicine, he proposes two kinds of training: one, a complete education, in college, for city doctors and surgeons, and another, for country doctors and surgeons, in the practical schools of the *départements,* continued, if incomplete, by further work at college.

Instruction in medical colleges will be based upon a knowledge of five chief principles.

1. Animal economy (anatomy, chemistry and physiology)
2. Substances (animal, vegetable or mineral) which influence this economy and are used in medicine (materia medica, chemistry and pharmacy)
3. Choice of proper ways of keeping the body in a state of health (physics, chemistry and physiology)
4. Symptoms and identification of diseases, and their remedies (pathology, the physique of the sick person, semeiology, nosology, therapeutics, and medical and surgical clinics)

[16] Félix Vicq d'Azyr: "Nouveau plan de constitution pour la médecine en France," November 25, 1790, in A. de Beauchamp: *Enquêtes et documents relatifs à l'enseignement supérieur,* Vol. XXVIII, Médecine et pharmacie, 1789-1803, Paris, 1888, pp. 7-158. I have been unable to discover a definite connection between this plan and that contained in the ill-fated bill introduced in 1790, although the two schemes; except for the number of professorships proposed, are strikingly similar.

5. History of medicine and surgery and basic methods of research (the science in all its ramifications-what has been done-what remains to be done).

The curriculum therefore includes:

1. How to study and observe (including application to medicine). 2. General and experimental physics considered only in its relation to medicine. 3. Chemistry. 4. Anatomy. 5. Physiology. 6. Materia medica, comprising what zoology, botany, and mineralogy offer for the use of medicine. 7. Pharmacy. 8. Prescription writing. 9. Hygiene. 10. Pathology. 11. Semeiology. 12. Nosology. 13. Therapeutics. 14. Treatment of diseases, medical or surgical. 15. Medical and surgical clinic.[17] 16. History of medicine and surgery. 17. Forensic medicine. The various subjects are to be considered both from the point of view of "theory" and "practice," "theory" itself being divided into preliminary sciences (anatomy, chemistry, physiology, pharmacy and materia medica) and applied theoretical sciences (hygiene, pathology, semeiology, nosology and therapeutics), while "practice" consists of observation and treatment. If one person could, because of great enough genius and robustness of health, teach all the main branches of medicine, the students would profit from absence of contradiction of each other where there are many professors (and possibly from mediocrity among them). Boerhaave taught chemistry, botany, *"les instituts"* (comprising physiology, pathology, semeiology, nosology and therapeutics), and practical medicine.

Zoology should be taught by the professor of anatomy and physiology, since it is basic to the latter. Chemistry is likewise basic to mineralogy and pharmacy and all these should be taught by the same person. The professor of materia medica should be well versed in natural history and the animal, vegetable, and mineral kingdoms. Vicq d'Azyr expands such ideas of the organization of medical education, recommending that the number of professors be held to a minimum and that each professor teach a group of related subjects. He discusses the periodic election of professors, the order of, and length of time to be devoted to, the various subjects, special features of instruction in German and Austrian universities, and other problems. As to the order of the various subjects and the length of time to be devoted to them, he pleads for flexibility and not a rigidity set by law, so that the progress of the student with the gifted

[17] D'Azyr also lays emphasis upon the need for hospital internship, where, by participating in the treatment and care of the sick, students can better learn the practical side of the art of medicine.

mind not be hampered by the slow progress of his fellows who have ordinary endowment, and for whom six years of study is not too long for a comprehension of the principles of medicine. He proposes the creation of clinical schools in large hospitals for the instruction of medical students. Other interesting ideas, such as medical societies for students, like the one at Edinborough, are advanced. Vicq d'Azyr's proposals may be summarized as follows:—

1. 10 professors [18]—6 in theoretical sciences
   4 in practice of medicine and surgery in a hospital.
2. All instruction and examinations to be conducted in the French language.
3. Free instruction for students not able to pay.
4. Five medical schools for France- Paris, Montpellier, Bordeaux, Nantes and Strasbourg.
5. Detailed discussion of periodic election of professors and methods of conducting examinations of students both on theory and on practice.
6. In each *département,* in one of its best organized hospitals, a practical school for the training of doctors, the faculty consisting of the hospital's doctor, surgeon and pharmacist.[19]
7. Preparation of elementary textbooks by " the most learned in medicine " to make the work easier and more uniform for students.
8. The students who attended practical schools elect either to complete their medical education by attending one of the medical schools, or may take examinations and be admitted to the title of doctor.
9. Mid-wives to be trained in each clinical and practical school at medical colleges and in the *départements.*
10. Practical schools to be established at special hospitals in sea-coast and large garrison towns for the navy and army.
11. Pharmacy to be taught in the five medical colleges and in the practical schools of the *départements.*
12. Veterinary medicine to be taught in schools attached to medical colleges, to the mutual advantage of both faculties and student bodies. Practical veterinary schools to be established in suitably located places in the country, and independent of the veterinary colleges.
13. Paris to have a center or clearing house for correspondence from all

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[18] D'Azyr stresses the establishing of professorships of clinical and surgical medicine. There should be only a small number of students, rather than a crowd, around the sick, while the students are learning the details of practical medicine or surgery in the hospitals.

[19] Most of the emphasis would be on practice, with only brief attention to theory.

parts of France and from foreign countries, to which medical questions and observations may be addressed.

Another set of proposals antedating Lavoisier's was made by Guillotin, in September 1791.[89] His plan featured twelve professors, four schools for medicine, surgery and pharmacy (at Paris, Montpellier, Bordeaux and Strasbourg) with a complete hospital attached to each for medicine, surgery and obstetrics. There were to be secondary schools of medicine at the great hospitals (military and naval), where staff doctors and pharmacists would teach their respective fields. The medical curriculum would include:

1. Medical physics
2. Hygiene
   —one professor
3. Anatomy
4. Physiology
   —one professor
5. Chemistry —one professor
6. Theoretical and practical pharmacy—one professor
7. Botany
8. Materia medica
   —one professor
9. Theoretical medicine, pathology, semeiotics, nosology, and general therapeutics—one professor
10. History of medicine, medical progress, methods of studying it, and forensic medicine—one professor
11. Practical medicine, internal diseases studied at the bedside of the patient and in a nearby ward, before and after the visits to the patients—two professors
12. Medical theory and practice—obstetrics, diseases of women in childbirth, and those of children—one professor

No professor was to give any special courses nor to hold two chairs. Although theory and practice of surgery are not so designated in the curriculum above, his schedule of examinations does list them.

The three plans bear striking similarities, as well as differences. Lavoisier's plan specifies comparative anatomy, while the other two imply it somewhere in their texts. Lavoisier specifies mineralogy, botany, zoology, entomology, and geology, while d'Azyr recommends only those parts of these sciences which have application to medicine and Guillotin does little better. Lavoisier and Guillotin specify gynecology and pediatrics. D'Azyr does not do so, but he may have intended to include these in his pathology, semeiology, and nosology omitted by Lavoisier,

[89] *Enquêtes et documents relatifs à l'enseignement supérieur*, Vol. XXVIII, pp. 159-189.

who in turn lists practice in internal and external medicine. Lavoisier omits forensic medicine, therapeutics, prescription writing and methods of studying and observing patients. Both Lavoisier and d'Azyr recognize, in varying degrees, the value of having the same person teach two or more related subjects, but Guillotin disagrees. Lavoisier and d'Azyr provide for training in pharmacy, veterinary medicine and mid-wifery, and both speak of the preparation of improved textbooks to meet more adequately the needs of the students.

Both d'Azyr and Guillotin go much farther to emphasize practice as opposed to theory, than does Lavoisier.

It was not medical education alone that Lavoisier hoped to improve, but the very practice itself. Lalande, in a sketch, says that Lavoisier had, through his biochemical experiments, " acquired an insight into the causes of different diseases and on ways of supplementing Nature in their cure and he was preparing to attack the . . . ancient colossus of medical prejudice and error. Nothing was more important than this work of Lavoisier, and one can say that if the sciences had experienced an irreparable loss, all humanity should join us in lamenting this privation." [21]

[21] Magasin encylopédique, 1795, *5*: 183.

ACKNOWLEDGMENTS AND SOURCES

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A SUMMARY OF THE COURSES TO BE GIVEN IN THE FRENCH SCHOOLS, ACCORDING TO LAVOISIER'S PLAN

LANGUAGES, LITERATURE, AND FINE ARTS

PRIMARY SCHOOL	ELEMENTARY SCHOOL	INSTITUTE	LYCEE
French language { Speaking. Reading. Writing.	Elements of French Grammar.	Languages. { General grammar. *Modern*: { French. Foreign most suited to the localities. *Ancient*: { Latin. Greek.	Modern languages and literature. { General grammar and French language. English, German, Italian Spanish, or other suited to locality.
			Ancient languages and literature. { Oriental. Greek. Latin.
		{ Art of writing. General and elementary theory of the fine arts, especially poetry and elocution.	Advanced theory of fine arts. { Elocution. Poetry. Painting. Sculpture. Architecture. Music.
Singing, principally for civic holidays.	Singing (continued).	Music.	Drawing. Painting & Sculpture. Composition and playing of music. Antiquities.

ETHICAL AND POLITICAL STUDIES

PRIMARY SCHOOL	ELEMENTARY SCHOOL	INSTITUTE	LYCEE
History suited to the development of primary ethical principles, such as affection for, or loyalty to, parents, proper treatment of our fellow man.	General history divided into its principal eras, and development of those most suited to nourish the republican spirit.	History. Mythology.	History with relation to: Ethics. Politics. Industry. Commerce. Chronology. Geography.
Most commonly used geographical ideas (*notions*).	Elements of geography. Geography of France and its neighbors.	Geography.	
Primary understanding of ethics, most particularly of rights and duties.	Development of the most important principles of ethics and of the rights and duties of the citizen.	Analysis of sensations and ideas. Logic and method of sciences. Ethics.	Analysis of sensations and ideas. Method of sciences. Ethics and natural rights.
Lessons on elementary social science and laws.	Elementary social science. Explanation of those French laws, a knowledge of which is of most general usefulness.	General principles of political constitutions. Political economy. Commerce. Legislation.	Social science. Political economy. Finance. Commerce. Public rights and laws: Human rights. Rights of European peoples. Laws of ancient and modern peoples. French legislation.
Instructions in social relations.	Obligations and contracts.		

A SUMMARY OF THE COURSES TO BE GIVEN IN THE FRENCH SCHOOLS, ACCORDING TO LAVOISIER'S PLAN

(Continued)

MATHEMATICAL AND PHYSICAL STUDIES

PRIMARY SCHOOL	ELEMENTARY SCHOOL	INSTITUTE	LYCEE
Ideas of physical meteorology.	Ideas of important principles of physics.	Experimental physics and chemistry.	Experimental physics. Chemistry.
Ideas of natural history, particularly economic botany.	Development of some parts of natural history.	Natural history of the three Kingdoms (animal, vegetable, and mineral).	Mineralogy. Geology and Physical Geography. Botany. Vegetable Physics. Zoology. Entomology.
First rules of arithmetic.	Arithmetic. Most useful propositions of elementary geometry.	Elements of mathematics.	Calculus and mathematical analysis.
Mensuration. Survey of simple astronomical ideas.	Surveying. Levelling. Common ideas of astronomy.	Elements of: Mechanics. Optics. Astronomy and Hydrography. Physics. Most useful application of calculus and geometry to: Ethical and political sciences.	Mechanics. Hydraulics. Celestial mechanics. Analysis as applied to physical objects. Mathematical geography. Application of calculus to ethical and political sciences. Observational astronomy and hydrography.

ARTS AND THE APPLICATION OF THE SCIENCES TO THE ARTS

PRIMARY SCHOOL	ELEMENTARY SCHOOL	INSTITUTE	LYCEE
Some principles of conservation of health.	Hygiene.	Elements of anatomy and obstetrics. Elements of veterinary art. Hygiene Medicine.	Anatomy, physiology, and comparative anatomy. Pharmacy and Materia medica. Theory of medicine. Practice of internal and external medicine. Theory and practice of obstetrics. Maladies during confinement, and of children. Veterinary art. Hygiene. Method and history of medicine.
Farming. Gardening.	Some notions on agriculture and cultivation of forests and gardens.	Elements of agriculture (taught by the professor of physics).	Agriculture and rural economy. Mine development. Metallurgy.
		Elements of military art and of gymnastics.	Military art. Naval science.
Some lessions in outline drawing. Some notions about the simplest machines.	Outline drawing. Commonest principles of arts and crafts.	Drawing. Geometry and mechanics, physics and chemistry as applied to the arts.	Arts and Crafts: Stereotomy or geometry of the arts. Geometry of (building) construction. Mechanics, physics and chemistry of the arts and crafts.

THE WILLIAM OSLER MEDAL ESSAY

"RESURRECTION" AND LEGISLATION
OR
BODY-SNATCHING IN RELATION TO THE ANATOMY ACT IN THE PROVINCE OF QUEBEC*

D. G. LAWRENCE

On December 6, 1843, the Legislative Assembly of the Province of Canada passed "An Act to Regulate and Facilitate the Study of Anatomy." Three days later the Governor, Sir Charles Metcalfe, gave Royal Sanction to the bill (1), the preamble of which reads as follows:

Whereas it is impossible to acquire a proper or sufficient knowledge of Surgery or Medicine, without a minute and practical acquaintance with the structure and uses of every portion of the human economy, which requires long and diligently prosecuted courses of dissections; And whereas the difficulties which now impede the acquisition of such knowledge amount almost to a prohibition of the same, and it has become necessary, in consideration of the rising importance of Medical Schools in this Province, and for the relief of suffering humanity, to make some legislative provision, by which duly authorized teachers of Anatomy or Surgery may be provided with bodies necessary for the purpose of instructing the pupils under their charge; Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice of the Legislative Assembly of the Province of Canada, constituted and assembled by virtue of and under the authority of an Act passed in the Parliament of Great Britain and Ireland, intituled, An Act to Re-unite the Provinces of Upper and Lower Canada, and for the Government of Canada, and it is hereby enacted by the authority of the same, that the bodies of persons found dead publicly exposed, or who immediately before their death shall have been supported in and by any Public Institution receiving pecuniary aid from the Provincial Government, shall be delivered to persons qualified as hereinafter mentioned, unless the person so dying shall otherwise direct: provided always, that if such bodies be claimed within the usual period for interment, by bona fide friends or relatives, or the persons shall have otherwise directed as aforesaid before their death, they shall be delivered to them or decently interred. (2)

Thus was enacted the first Canadian legislation dealing with this subject. It was by no means the first act of its kind, however, having been preceded by the Warburton Anatomy Act in England in 1832 (3) and the first American Act passed by Massachusetts in 1831 (4).

*Read at a meeting of the Osler Society of McGill University, Montreal, Quebec, Canada, April 2, 1957.

It was recognized in Europe as far back as the early seventeenth century that witnessing or performing a dissection of the human body was an essential part of medical education (5). In France, Germany, Italy, and Holland an ample supply of subjects for such purposes was provided for by law. Persons dying in hospitals or jails in these countries were, according to law, handed over to the local medical schools for dissection (6). However, in England, prior to the passage of the Warburton Bill, only the bodies of criminals executed for murder could be dissected, and the supply was far short of the demand (7, 8). A similar situation existed in those parts of the United States in which there were medical schools (9, 10, 11).

This shortage of dissecting material soon led to body-snatching or grave-robbing, which was the practice of exhuming newly buried bodies from graveyards and selling them to local anatomical schools. In England and the United States, and eventually to a more limited extent in Canada, there came into existence a group of men, known as " Resurrectionists " or " Sack-em-up-men," who earned a living by such means. Indeed in both England (12) and the United States (13) some of these men committed murder for this purpose. In these two countries such incidents were of major importance in speeding legislation to provide the necessary subjects.

In Canada the need for cadavers for anatomical dissection originated in the last quarter of the eighteenth century when Canadian-born aspirants to a medical education were apprenticed to practising physicians. According to the Licensing Act of 1788 (14) no person could practise medicine or surgery without first receiving a license to do so. Implicit in the requirements for obtaining such a license was a detailed knowledge of anatomy which could only be had from anatomical dissection and " cadaver surgery." Since there was no legal provision for the procurement of subjects, the apprenticed students had to resort to body-snatching from local cemeteries (15). This involved the risk of punishment by law for desecrating human remains (16, 17).

E. D. Worthington in his reminiscences of student life in Quebec City, where he was apprenticed to James Douglas, M. D. in the late 1830's, recalls several grave-robbing escapades. He sums up the situation in the following words:

> Every medical man in the city (Quebec) who had any practice at all had a private pupil. Some had three or four. The student was bound by law to pass an examination and show a certain amount of anatomical knowledge before he could legally begin the practice of his profession. By " law " he was bound to dissect, by " law " he might be punished for dissecting. Strange inconsistency! (15)

Inconsistency indeed, but perhaps not so strange when one recalls that Great Britain had only just passed an Anatomy Act doing away with two centuries of the same absurd incongruity. A British physician who had been a medical student prior to the passing of the Warburton Bill recalled that:

> There was then this extraordinary state of things, that, while Universities and Colleges, and Army and Navy authorities, required a knowledge of anatomy from those practising medicine and surgery, both in civil life and placed (*sic*) in charge of our soldiers and sailors, the law not only did not in any way provide for their having opportunities of acquiring a knowledge of anatomy, but absolutely punished them for attempting to acquire the means of studying it. Churchyards were the only available source, but the law declared that anyone caught in a churchyard was liable to be indicted for trespass, and anyone detected removing a shroud was liable to be indicted for robbery. (18)

The charge of robbery was circumvented by the removal of the body alone, leaving the shroud and coffin.

This paucity of dissecting material was held responsible for the deplorable lack of knowledge exhibited by examinees. During the Peninsular War of 1815 there was an urgent need for medical men to tend the wounded. Consequently, the " most inefficient and ill-informed men were necessarily accepted as medical officers, for it was thought better to have the worst informed than none at all " (18). In order to license these men it was necessary to make the examinations extremely lenient.

> On another occasion, a very celebrated surgeon, the late Sir Astley Cooper, was examining a candidate for surgeoncy, and, wishing to comply as far as he conscientiously could with the tone of the time, put what was a very simple question to facilitate the passing of the candidate—" What is a simple, and what is a compound fracture? " Reply—" A simple fracture is when a bone's broke, and a compound fracture is when it's all broke." " I asked," said Sir Astley, " what he meant by 'all broke?'" " I mean," he replied, " broke into smithereens, to be sure." " I ventured to ask him what was 'smithereens?' He turned upon me with an intense expression of sympathy on his countenance. 'You don't know what is 'smithereens?'—then I give you up.'" (18)

Although there was no such urgent demand for medical men in Canada at this time, there was a need for subjects for anatomical dissection. This need was accentuated following the establishment of the Montreal Medical Institution in 1823 (19). The first organized medical school in Canada, it became, six years later, the Medical Faculty of McGill College. Dr. A. H. David, a first year medical student in 1829, wrote, some 50 years later, his reminiscences of that time. Dr. Stephenson, one of the four founders of the Montreal Medical Institution, he remembered as a brusque

man who was not always courteous to his students. One incident related by Dr. David indicates that Dr. Stephenson may have had some justification for this discourtesy:

> The lectures of the Faculty were delivered in a narrow house of three stories that was situated about where the west end of the present Montreal Bank now stands; it ran through Fortification Lane, on which was the dissecting room. Subjects were scarce in those days, and the students had to resort to resurrectioning to obtain the necessary material. One night some of the students went out and obtained three subjects, and when we brought them in, went to Dr. Stephenson's house to ask him for the key of the dissecting room so as to place them there, but he refused to give it to us, or to allow the bodies to be placed there, and sent us off with "a flea in our ear." (20)

The students kept the bodies though, and dissected them "on their own hook" during that winter. They also held an "indignation meeting" with the rest of the students and passed resolutions condemning Dr. Stephenson's conduct. The resolutions seem to have had effect, for Dr. Stephenson treated them all "much better afterwards." It is thus apparent that the Faculty was compelled, however unwillingly, to allow the students to obtain bodies in this fashion.

I could find no other record of body-snatching incidents until 1843, when the following letter appeared in the *Montreal Daily Herald* of August 23. This does not mean there were no further grave-robbings; indeed the letter indicates that the practice was still prevalent.

> To the Editor of the *Montreal Herald*
>
> Sir,—Through the medium of your journal I beg to call attention to a nuisance which calls for immediate abolition. I allude to the gross indecency of many persons, who, at various times, have kept watch on the old burying ground, of firing pistols and fowling pieces during the night and early morning, to the very great annoyance of the inhabitants residing in the neighborhood. A few mornings since I heard, as did several persons in the same house, no less than 15 shots fired in the space of half an hour. I presume these bold and valiant watchmen keep firing when dark by way of informing the medical students (whom they, no doubt, believe to be at hand) by auricular demonstration, that they are on the ground, and should the medical men approach that they are determined to defend themselves to the utmost. When daylight appears, these heroic watchers regain their lost courage, although there is no diminution in the firing; indeed from its frequency it is to be imagined that they place a target, probably an unfortunate bottle, which they have previously emptied, upon the top of a gravestone or suspend it from the branch of a tree, when they exercise their shooting powers, and at the same time salute their deceased friends with military honors over the grave.

The writer goes on to urge that the police take action to end the annoyance and signs himself as "One of the Annoyed." The Editor concurred,

adding that "on more than one occasion, bullets have entered through windows and walls of houses near the graveyard, to the danger of the inmates."

A later incident on November 7, 1843, in Chambly, leaves no doubt as to the persistence of body-snatching. The newspaper report is interesting in that it sets a pattern that is found in many accounts of subsequent incidents. It first describes the excitement created in the village giving detailed coverage of events as formulated by local detectives, amateur or professional, then eulogizes the deceased and explains his family situation. Next the story of the tracing of the body is related and, finally, if the body is found, a description of its reburial is given. In the Chambly incident, the gentleman had been an old soldier in one of the local regiments. The final paragraph of the report describing his reburial is tinged with pathos:

> A little before dark the party reached the old military burying ground, where a good deep grave had been dug. This old cemetery is close to the fort and under the surveillance of a sentry. The mortal remains of Sgt. Campbell were once more consigned to their last resting place. The old military burying ground, which for years has been laid waste, is, it is understood, to be enclosed and palisaded. This is as it should be, for the least the soldier should expect, after sacrificing his best energies and life in the services of his Sovereign and country, in the four quarters of the globe, subject to every vicissitude of clime, is that when consigned to the grave, his remains should lie honoured and undisturbed. (21)

It is evident from these few incidents that body-snatching flourished in Canada in the early nineteenth century. Shortly after 1840 the need for bodies was further increased by the opening of two new medical schools in the Province of Quebec, "L'Ecole de Médecine et Chirurgie de Montréal" and the "Incorporated School of Medicine of the City of Quebec." The former was the forerunner of the present Faculty of Medicine of the University of Montreal; the latter became the Medical Faculty of Laval University (19).

Thus with the demand for subjects for dissection rapidly increasing, some lawful means of supplying bodies had to be found. On October 6, 1843, a petition of the Medical Board of Montreal was read in the Legislative Assembly of the Province of Canada, begging the House to pass an act to regulate and facilitate the study of anatomy.

The petition was referred to a Committee of five, amongst whom was one physician, the Honourable Sir Etienne Taché. The committee was empowered to send for "persons, papers and records" in order to study and deliberate upon the problem. The conclusions of the committee were incorporated in the form of an Act which was, as already stated, passed and assented to in December 1843. It is interesting to note that in one

of the divisions of the House during the passage of the bill, an enumeration by name was demanded. Amongst the "Ayes" appeared the name of A. F. Holmes, M. D., one of the four founders of the Montreal Medical Institution and subsequently the first Dean of the McGill Medical Faculty (1).

In addition to providing for the supply of subjects to medical schools, the Act stipulated who was qualified to receive such unclaimed bodies and created the position of Inspector of Anatomy to carry out its provisions. The persons qualified to receive the bodies were "public teachers of Anatomy or Surgery, or private Medical practitioners having three or more pupils," but any local school of anatomy was always to have a prior claim. These men had to give twenty pounds to the Justice of the Peace or the Inspector of Anatomy as security that the body would be interred after dissection.

The Inspector of Anatomy was to be appointed by the Government and was required to hold some other public office. He could be neither a medical practitioner nor connected with any medical school. His duties were to "make an impartial distribution of the bodies according to the actual wants of the claimants" and keep a record of the name, age, sex, and birth-place of the deceased. It was also his duty to inspect the authorized dissecting rooms and report any infraction of the rules of common decency or conduct to the Police Magistrate or Chief Municipal Authority. For his services he was to be paid one pound five shillings, by the teacher or practitioner, for every body delivered for dissection.

It was further provided that the Superintendent of each public institution receiving a Government grant should immediately notify the Inspector of Anatomy of the death of any inmate who was "known not to have any relatives or friends entitled to claim the body." The cadaver was then to be transferred, by the Inspector, to the dissecting rooms (2).

It was undoubtedly anticipated that the Act would not only supply the needs of the students, but also do away with body-snatching. Indeed, had its provisions been adhered to by all concerned, it is unlikely that any further difficulty would have arisen. However, since there was no provision for punishing those who did not comply with the details of the Act, it was not long before its deficiencies became manifest by continued grave-robbings.

In 1862, while a student at the McGill medical school, Griffith Evans recorded in his diary for February 21, a body-snatching incident involving five medical students. The students had gone into the country with a hired sleighman, abstracted two bodies from a dead-house and then returned with them to the medical building on Coté Street. Dumaine, the sleigh-

man, informed the police of the abstraction and they searched the premises of the school but found no trace of the bodies. When, however, the relatives threatened to prosecute the students unless the bodies were returned unmutilated, the cadavers were restored. The Governors of the college, on being advised of the episode, determined to make a strict rule not to admit, in the future, any corpse for dissection except through the regular channel (22, 23).

Dr. Evans proceeded to explain that the " regular channel " was from the United States where " plenty of negroes were obtained cheap, packed in casks, and passed over the border as provisions, or flour." He states further that:

> The students of the French Roman Catholic medical school in this city buy no subjects for dissection. They steal from graveyards all they require, and very seldom detected, because they are poor they do it for economy and are careful in their manner of doing it, if they drink alcohol on account of it they drink for jollification after, but not before. Our English students do it not for economy but for mischievous fun, dare devilry, they make themselves more or less intoxicated with alcoholics to excite their daring before going to the grave . . . and consequently a large proportion of them have been traced. (23)

Dr. Evans betrays that he had, if not a personal experience of such escapades, at least an excellent first hand informant:

> The safest way to do it is after obtaining information of a recent interment, go to the grave when it is snowing, dig down to the coffin, place the lifted earth in as compact a heap as possible, to minimise the mark, cut the lid off with a proper instrument from the head down to the middle, place a loop of cord around the neck of the corpse, pull it up out of the coffin, replace the lid and the lifted earth, cover all with snow, the descending snow will obliterate the footmarks if the last party will sweep it about evenly, carry the corpse to a provided sleigh, and off! (23)

Clearly the provisions of the Anatomy Act were not proving to be as successful as had been anticipated.

An earlier incident, recorded in the *Thirty-sixth Annual Report* of The Montreal General Hospital for the year ending April 23, 1858, refers to the abstraction of one of the pauper dead from the Hospital dead-house. This affair led to rioting in which both the McGill Medical School and the Hospital were threatened by an angry crowd (24, 25). Although two students pleaded guilty and the body was decently interred, the public was led to believe that similar abstractions had occurred frequently, and if the coffins in the vault of the cemetery were to be examined, many would be found empty. However, Mr. Sprigings, the Superintendent of the Mount Royal Cemetery, checked the contents of the vaults and certified that none of the bodies had been disturbed (26).

Another incident that excited much attention occurred at Lachine in January 1871:

A most outrageous deed was recently perpetrated at Lachine, where on the night of Friday, week before last, three or four young men broke into the dead-house and carried away the bodies of two nuns and a girl named Boyer. The most singular part of the proceeding is that the bodies, after having been hawked around the dissecting-rooms of this city for sale, without success, were returned to the proper authority in Lachine, on the payment of $112.00 and a pledge not to reveal the names of the sacrilegious burglars! (27)

The papers (28, 29) at the time were full of details concerning this robbery, which was considered to have been carried out "solely for pecuniary purposes." Students of L'Ecole de Médecine et Chirurgie de Montréal were implicated, and the principal and professors were urged to expel the guilty "wretches." Nothing seems to have resulted except a terse warning directed at grave-robbers in the *Montreal Evening Star* of Saturday, February 11, 1871:

Body Snatchers Beware

We saw to-day a tremendous weapon just finished for the watchman at the Cote des Neiges Cemetery. The gun is of enormous proportions, and will be loaded with about eight ounces of buck-shot. Parties meditating a raid on the above place of burial, will do well to recollect the formidable shooting iron now in the hands of the wide-awake watchman. A pot shot at a gang of grave desecrators would most likely supply the dissecting room with enough subjects for several weeks. (30)

The first plea for strict adherence to the provisions of the Anatomy Act appeared in the editorial columns of the January number of the *Canada Medical Journal* for 1871. The editors pointed out that according to the law, all paupers dying in any "poor house or hospital receiving government aid, or (in) gaol," should be turned over to the Inspector of Anatomy for distribution to the medical schools, unless claimed by friends or relatives.

There are, however, unfortunately corporations and communities which afford aid and succour to the poor, who systematically send for burial all the paupers who die in their poor-houses. We have two large hospitals in Montreal, and from one of these institutions no pauper dead are ever handed over to the inspector of anatomy for the purpose of dissection. These institutions have each a full staff of medical officers, men who freely sacrifice the best hours of each day in the gratuitous performance of their duties in attendance on the sick poor. And all these gentlemen ask, in this connection, is that the anatomy act be carried out faithfully. Why should the good ladies of the Hôtel Dieu Hospital indulge in maudlin notions about the desecration of the dead? Have they not sufficient confidence in the common sense of their medical staff to know and feel sure that no such desecration is permitted in any well ordered school of anatomy? (31)

Apparently the good ladies did not have " sufficient confidence " in the medical men, and in this they were joined by the majority of those in charge of public institutions. Francis J. Shepherd, a student at the McGill Medical School from 1869 to 1873, and later its Professor of Anatomy, states that " the only institution which fulfilled the law was the Montreal General Hospital, which religiously handed over to McGill all unclaimed dead." He also sheds light upon the cause for the inactivity of the Inspector of Anatomy by recalling that " the Inspector at (the) time was the City Clerk and he took no interest in his anatomical duties " (32). The situation was further aggravated by the appearance in the fall of 1871 of a third medical school in Montreal—the Medical Faculty of Bishop's University (33).

The editors of the *Canada Medical Journal* believed that the solution lay in faithful adherence to the provisions of the existing Anatomy Act (31). Others, however, took the view that the Act should be amended.

With the passage in 1867 of the British North America Act, the Dominion of Canada came into being under a federal constitution, with a federal parliament and provincial legislatures. The federal parliament was given a general grant of legislative authority to make laws for the peace, order, and good government of Canada in relation to all matters not coming within the Classes of Subjects which, under the terms of the Act, were assigned exclusively to the Legislatures of the Provinces. A further section of the Act provided that all laws in force in the Province of Canada prior to Confederation, and all officers holding positions under the provisions of such laws should " continue . . . as if the union had not been made; subject nevertheless . . . to be repealed, abolished or altered by the Parliament of Canada, or by the Legislature of the respective Province, according to the Authoriy of the Parliament or of that Legislature under (the) Act " (34). Among the matters which thereby came within the legislative jurisdiction of the Province of Quebec was the Anatomy Act of 1843 (35). In accordance with the continuance clause cited above, no change took place either in the Act itself or in the person of the Inspector of Anatomy.

It was not long before the Legislature of the newly-constituted Province of Quebec was called upon to consider the difficulties surrounding the study of anatomy. In the *Montreal Evening Star* of Wednesday, November 21, 1871, it is reported that Dr. Lafontaine, the member for Napierville in the Legislature, moved the second reading of a bill aimed at facilitating the procurement of subjects for dissection. The motion was allowed to stand after " considerable discussion." One week later it was reported that " Dr. Lafontaine's obnoxious bill with regard to the disposal

of the corpses of those who die in hospital was withdrawn" (36). Although I could not find the original motion it is obvious that it must have been directed at securing for dissection the bodies of unclaimed hospital dead. The wording of the final report indicates that the bill was far from popular and indeed the November editorial of the *Canada Medical Journal* states that any amendment to the Act was quite unnecessary. The editors still believed that what was required was faithful adherence to the provisions of the Act!

In spite of the withdrawal of Dr. Lafontaine's bill, the Provincial Legislature realized that the ever-increasing need for bodies had to be met. Thus, in December 1872, an amendment was passed limiting those who could claim the bodies of pauper dead to "relations not further removed than in the third degree, and such degree of relationship shall be established by oath of the claimant" (39). It was hoped that by limiting the number of persons able to claim such bodies, more subjects would be made available for dissection.

Another amendment making it unnecessary for the Inspector of Anatomy to hold a municipal office was passed in February 1875 (38). It was followed, three years later, by a further amendment requiring the Inspector of Anatomy to "appear before the rector, curate, or other priest or minister of a church of the religion to which the deceased belonged, and to cause an act of death to be inscribed." This was to be done in all cases where a body was delivered, before burial, to a school of anatomy and was actually a part of an Act respecting civil status in the Province (39).

That these amendments and the pleas of the *Montreal Medical Journal* had no effect is evident from the reminiscences of Dr. F. J. Shepherd. When Dr. Shepherd became Demonstrator of Anatomy at McGill in 1875, he "found immediately that to provide subjects for the dissecting room (he) had to accept those obtained from 'Resurrectionists.' The body-snatchers were usually medical students, chiefly French, who by the proceeds of their nefarious occupation paid their fees" (32). The usual price of a subject at that time was thirty to fifty dollars! Dr. Shepherd also recounts several amusing incidents that arose in connection with obtaining bodies for dissection.

> On one occasion I received from the Montreal General Hospital in proper legal form the body of a man who had died friendless—an Englishman. He was received on Friday evening. It turned out that the man had been a Mason and the Masons getting wind of it, made enquiries, and it was found that this ne'er-do-well was the Honorable ———, son of Lord ———, and had been a prominent Mason. The Masons called on me Saturday afternoon, and after having explained the circumstances of the case, asked me to kindly deliver up the body, and said

they would pay all the expenses. I gave a written order to the janitor (the celebrated Tom Cook) to deliver up the body, and they went away much pleased. A fine coffin was sent to the college with a silver plate on the lid giving the name and titles of the occupant, and Cook was to place the body in the coffin. Next day, Sunday, there was a Masonic funeral at Christ Church Cathedral, which was attended by all the prominent Masons in full regalia. Well, on the Monday following I went up to the dissecting room and the first subject I saw was this man who was supposed to have been buried the day before. I called up Cook and asked him what he meant by this and he told me that he could not bear to let so good a subject leave the College, so had substituted a rotten old subject which had been some weeks in the deadhouse, a Frenchman and a Catholic! (32)

On another occasion a French student entered the dissecting room and found his uncle lying on a table. Dr. Shepherd hastened to apologize and offered to return the body if the student would pay the expenses of removal. The student "thought awhile and (then) said, 'S'pose mine oncle come, s'pose he stay'" (32).

Further evidence that body-snatching had not stopped is found in an editorial in the *Canada Medical and Surgical Journal* for September 1879:

Canada is perhaps the only country in the civilized world where "body-snatching" (is) of yearly, and in winter sometimes of monthly, occurrence. . . . This Act (the Anatomy Act) certainly is strong enough, and could not be improved upon; but the misfortune is that it has never been fully acted upon, and "body-snatching" is still in vogue.

Elsewhere in this editorial, reference is made to an amendment passed during the 1879 Session of the Quebec Legislature, making it possible for the Inspector of Anatomy to be either a coroner, or a physician not connected with any school of medicine (40). This amendment did not, however, result in the much-sought replacement of the inactive incumbent, who was still the Montreal City Clerk. Apparently this was due to no fault of the latter gentleman:

The present Inspector has many times expressed the wish that he might resign his post, and we believe did at one time send in his resignation, which was not accepted. He does not profess to attend to the duties of an office which he holds unwillingly. As the Act now stands, any one except a physician connected with a medical school is eligible for the appointment. Why do the Government not appoint some active individual who is both able and willing to attend to the duties of the office properly? (41)

Both the latter question and the request that the Inspector of Anatomy be replaced seem to have been ignored, for there is no mention of a change until April 1883, when Mr. Lamirande, the Prosecuting Officer of the

College of Physicians and Surgeons was suggested as a candidate for the office (42).

Other suggestions for meeting the demand for subjects, and at the same time eliminating the violation of the cemeteries, were formulated. A doctor in New York proposed that cats be used for dissection, pointing out that this would probably serve two good ends, "the numerical decrease of cats and the quantitative increase of anatomical knowledge" (43). A writer in the *Scientific American* suggested that:

> . . . every medical student solemnly swear, as he stands with uplifted scalpel before his first subject, that in return for the privilege of dissecting others, he agrees to give up his own body after death for a like purpose. The medical fraternity owe it to themselves to form a mutual dissecting league, and thus render themselves independent of the general public. (44)

Neither of these proposals was acted upon!

In one Montreal newspaper alone, between December 12, 1882 and January 25, 1883, there were seven grave-robbing episodes reported, with the total number of bodies stolen amounting to eighteen (45). On January 18, Mr. Dugas, the Montreal Police Magistrate, issued a warning in which he stated that, in future, cases coming before him would be "dealt with severely." The next day the same paper reported the abstraction of three bodies from the dead-house at Ste. Marie de Monnoir!

It was at this juncture that the Quebec Legislature again became concerned with the problem. On January 25, 1883, Mr. Beaubien, the Conservative member for Hochelaga, called the attention of the Government and medical men in the House:

> . . . to the deplorable state of affairs now prevailing in Montreal, in connection with the supply of anatomical subjects for the medical colleges; adding that he had been charged especially by some of the Professors of the medical faculties, with the duty of doing so. . . . He pointed out that the number of medical students had largely increased, of late, and that the supply of bodies for dissecting purposes was utterly inadequate to the demand. (46)

Mr. Beaubien requested that the law regarding the disposal of the unclaimed bodies of persons dying "in Hospital, and especially in hospitals receiving public grants, . . . should be more rigidly enforced." Mr. Mousseau, Premier of Quebec, "fully agreed with the member for Hochelaga," but did not state what action the Cabinet would take (46).

The general public were also much aroused by the frequent reports of body-snatching episodes. Whereas in former years the grave-robbers had been reasonably discreet, they now seemed to become almost reckless:

> It (was) the custom in Eastern Canada in country places in winter, on account

of the frozen state of the ground, to place the dead in vaults or dead houses in place of burying them, and in the spring when the ground thawed out they were interred in the ordinary way. At one time (1883) the students in search of these subjects broke open (some of) these vaults and removed all the bodies from them without disturbing the coffins, leaving the clothes behind. (32)

Medical students came to be regarded with such antipathy that they were considered capable of any crime. It seems that at least some students took advantage of this notoriety to seek amusement:

Quite a sensation was caused in the northern part of the city last evening, by a report which was circulated to the effect that a little child had been hanged on St. Catherine street. Just about dusk some passers by noticed, to their horror, what appeared to be the body of a little infant hanging from the window of a boarding house. All, of course, felt terribly shocked at the thought of such an outrage on humanity, which was attributed at once to those "brutal medical student." After gazing for some time, a very sensitive gentleman mounted the stairs leading to the room in which the window was, and withdrew the infantile form. Judge of his disgust, however, when he found that the corpse was only one of a goose which had been dressed up to represent an infant by some mischievous students who had enjoyed the fun from their rooms across the road. (46)

Eight more incidents of body-snatching were reported between January 26 and March 1, 1883, in which eighteen bodies were stolen (47). Apparently the medical schools could not use all these bodies for there are records of transactions in which some were sold back to the relatives:

A peculiar incident took place concerning the bodies stolen from Ste. Marie de Monnoir (on Jan. 17, 1883). The curé of the village and other authorities offered a reward of $50.00 for the return of the bodies. The relatives agreed to $80.00. A court house official negotiated with the students, but found that they would not give up their prey for $80.00. The official feeling sure of the reward paid them $15.00 more out of his own pocket and secured the bodies. However, when he claimed the reward from the village authorities they said that the offering of a reward had been merely talk, and that nothing had been decided upon. The official then refused to give up the bodies, and declared that he would sell the body of the girl for $50.00 and pay himself. This speedily brought the recalcitrant villagers to terms. (48)

In at least one such case the relatives attempted to outdo the students. The Government was prosecuting certain students who had stolen a body and later returned it to the relatives for the sum of $80.00. It was decided to "discontinue the prosecution if the $80.00 paid by the Brodeurs for the return of the body was refunded." The students endeavored to make up the sum required, but Brodeur "apparently wishing to speculate" brought in a bill for $180.00 (49)!

On February 6, 1883, Mr. Beaubien again called the attention of the

Legislature to the state of affairs in Montreal and asked that a special committee of the House be appointed to investigate the problem. This was followed, on February 22, by a request from Mr. Stephens that the Inspector of Anatomy be replaced. The Premier replied that the situation in Montreal was under consideration (50).

One week later Mr. Archambault, member for Quebec, introduced an amendment to the Anatomy Act providing a twenty dollar fine for any institution receiving public funds that did not, " within twenty-four hours, give notice to the Anatomical Inspector of the decease of any patient therein." On March 9, this amendment was read a second time and then withdrawn in favor of a more comprehensive bill introduced by the government (51).

The Government Bill, subsequently passed on March 31, 1883, had the support not only of the Professors of Anatomy of the various medical schools (32), but also of the " Archbishop of Quebec, the Bishop of Montreal, and the religious authorities generally " (52). It first provided for the division of the Province into two sections, the " Montreal Section " and the " Quebec Section." The Lieutenant-Governor-in-Council was to designate the judicial districts comprising each section and to appoint an Inspector of Anatomy for each of the two sections and a Sub-Inspector of Anatomy for each judicial district. The Bill further provided that the bodies of all persons dying in a public institution receiving a grant from the Provincial Government, unless claimed for burial within twenty-four hours by relatives within the degree of first cousin, were to be handed over, through the Inspector or Sub-Inspector of Anatomy, to the schools of medicine for use in the study of anatomy and surgery.

The Superintendent of any such public institution was to notify the Inspector or Sub-Inspector of Anatomy of the decease of patients in his charge within forty-eight hours of the death. Similarly every coroner in possession of a body found publicly exposed was to notify the Inspector or Sub-Inspector of the finding thereof.

The third section of the Government Bill stated:

> That every superintendent or director of a public institution receiving a grant from the Government, and every coroner who shall knowingly omit or who shall neglect or refuse to comply with the provisions of the Act to be based on these resolutions, and every University or School of Medicine which shall receive corpses in its dissecting rooms, or allow the dissection within its establishment of corpses which have not been supplied to it by the Inspector of Anatomy, shall, upon a complaint to that effect before a Justice of the Peace by the Inspector or Sub-Inspector of Anatomy, be liable to a penalty of not less than one hundred nor more than two hundred dollars for each offence. (51)

Thus, at last, a punitive clause was included and the new Statute, designated "An Act to Amend and Consolidate the Various Acts respecting the Study of Anatomy" (53) was greeted in the medical journals with much enthusiasm. It was believed that not only would it furnish an ample supply of dissecting material but at the same time put a stop to the "disgraceful desecration of graveyards and vaults" (54, 55).

Prior to the passage of the Act a few dissenting voices in the Legislature asserted that the Bill "consecrated an immoral principle by legalizing the traffic in corpses" and therefore urged that "it be not concurred in" (51). After its passage, the authorities of the St. Patrick's Orphan Asylum and the Protestant House of Industry "opposed the working of the law in their respective establishments." The former took the only logical course and renounced its Government grant; the latter attempted to keep the grant but evade the law (56). The *Montreal Herald* denounced the Act in a series of articles depicting it "in a light more horrible than true, and (called) upon the Legislature to repeal it without delay" (57).

The ultimate test of the value of the Act was, of course, whether or not it would provide an adequate supply of subjects for dissection and put a stop to body-snatching. That it met these requirements is evident from an editorial in the *Canada Medical and Surgical Journal* for March 1884:

> The session of 1883-84 has now come to a close, and as it is the first since the introduction of our New Provincial Anatomy Act, we may be permitted to enquire what has been accomplished by it. The first noticeable fact is that, from last October until the present moment, not one single paragraph has been found in the daily papers having reference to the desecration of graves. . . . We have moreover, been informed by the teachers of anatomy that it is their belief that, for the first time in the history of the country, grave-robbing has been entirely unknown. The main object, therefore, for which the Act was passed—viz., the suppression of the resurrectionists—has been completely fulfilled. At the same time the requirements of the Medical Schools have been amply met. . . . (13)

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AMERICAN ASSOCIATION FOR THE HISTORY OF MEDICINE

REPORT OF THE

THIRTY-FIRST ANNUAL MEETING

New York City

May 22, 23, and 24, 1958

The Thirty-First Annual Meeting of the American Association for the History of Medicine was held in New York City, May 22-24, 1957, upon the invitation of the New York Academy of Medicine and the Rockefeller Institute for Medical Research. Headquarters for the meeting were at the Academy, and altogether 135 members and guests were registered. Those present are much indebted to the speakers for their stimulating papers, to the inviting institutions for their gracious hospitality, and to the members of the Program and Local Arrangements Committee, consisting of Iago Galdston, Chairman, Gertrude L. Annan, Detlev W. Bronk, George W. Corner, Howard R. Craig, Paul Fejos, John F. Fulton, Alan F. Guttmacher, Claude E. Heaton, Saul Jarcho, Samuel W. Lambert, Jr., and George Rosen, for their effective organization of an interesting and enjoyable meeting. The Association also gratefully acknowledges the support of Merck & Co., Inc., Chas. Pfizer & Co., Inc., and E. R. Squibb & Sons.

PROGRAM

THURSDAY, MAY 22, 1958

The New York Academy of Medicine

9:00 a. m. Registration

10:30 a. m. Morning Session

Benjamin Spector, Presiding

Address of Welcome

Robert L. Levy, President, The New York Academy of Medicine

Contributed Papers

1. General Wilkinson and the Terre au Boeuf Incident
   John Duffy, Baton Rouge, La.
2. "Harvey and the Circulation of the Blood" during the American Colonial Period
   Francisco Guerra, New Haven, Conn.
3. Theories of Vision and Color Perception of Empedocles and Democritus; Some Similarities to Modern Approach
   Rudolph E. Siegel, Buffalo, N. Y.

4. The Dilemma of Johann Jacob Wepfer; the History of the Contracted Kidney
Paul Klemperer, New York, N. Y.

12:30 p. m. Buffet Luncheon

2:00 p. m. Afternoon Session

Howard R. Craig, Presiding

Symposia

1. Forensic Medicine
Milton Helpern, New York, N. Y.
Wilton Marion Krogman, Philadelphia, Pa.
2. The Development of Physiology in the Last Fifty Years
Chandler McC. Brooks, Brooklyn, N. Y.
Paul F. Cranefield, Brooklyn, N. Y.

4:30 p. m. Reception, Rare Book Room

The Library of The New York Academy of Medicine
Gertrude L. Annan, Librarian, The New York Academy of Medicine

FRIDAY, MAY 23, 1958

THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

9:30 a. m. Morning Session

George W. Corner, Presiding

Address of Welcome

Detlev W. Bronk, President, The Rockefeller Institute for Medical Research

Contributed Papers

1. Pietro Pisani and the Mental Hospital of Palermo in the Early 19th Century
George Mora, Providence, R. I.
2. Johannes Mueller and the Berlin Medical Faculty
Walter Artelt, Madison, Wis.
3. Thomas Campion, Doctor of Physicke
G. Kasten Tallmadge, Milwaukee, Wis.
4. The Changing Ideology of Health Fairs and Health Museums During the Last 75 Years
Bruno Gebhard, Cleveland, Ohio
5. The National Institutes of Health Research Grants Program
Philip Sapir, Bethesda, Md.

12:30 p. m. Buffet Luncheon

2:00 p. m. Afternoon Session

Richard H. Shryock, Presiding

Symposium: A History of the Drug House

1. Synthetic Chemicals
Maurice L. Tainter, Rensselaer, N. Y.

2. The Biologicals
   J. J. Van Gasse, Brooklyn, N. Y.
3. Fermentation
   J. J. Tooby, New York, N. Y.
4. Research
   Max Tishler, Rahway, N. J.

4:30 p. m. Reception, President's House

THE NEW YORK ACADEMY OF MEDICINE

6:30 p. m. Annual Dinner

8:30 p. m. Evening Session

Benjamin Spector, Presiding

Fielding H. Garrison Lecture

Three Hundred Years of Medicine in New York
Claude E. Heaton, New York, N. Y.

SATURDAY, MAY 24, 1958

THE NEW YORK ACADEMY OF MEDICINE

9:00 a. m. Business Meeting

10:30 a. m. Morning Session

Iago Galdston, Presiding

Henry Sigerist Memorial Symposium

1. On Aspects of Medical Historiography
   Owsei Temkin, Baltimore, Md.
2. Sigerist's Social Philosophy
   George Rosen, New York, N. Y.

Discussors

George W. Corner
Robert Bierstedt
Gregory Zilboorg

12:30 p. m. Adjournment

BUSINESS MEETING[1]

The annual business meeting, being the first annual meeting since the incorporation of the Association, was called to order by the President, Dr. Benjamin Spector,

[1] The following abstract of the minutes of the Business Meeting is presented for the information of the members. The complete official minutes are preserved in the Secretary's office, where they are open to inspection upon the request of any member.

at 9:00 a.m., May 24, 1958. After declaring the meeting open for business, the President asked those present to stand while the Secretary read the names of members who had died since the last meeting:

Alfred E. Cohn	Roland Hammond
William J. Dieckman	Arno B. Luckhardt
Virginius C. Hall	Rudolph Matas

The Secretary then reported that pursuant to the resolution of the membership adopted at the previous annual business meeting on May 8, 1957, a Committee of Incorporation had been appointed and had taken all the necessary steps to incorporate the Association under the Membership Corporations Law of the State of New York. The Secretary presented a copy of the Certificate of Incorporation [2] together with the receipt of the Secretary of State of New York for the original copy of the Certificate, which was filed on January 27, 1958. The actions of the Incorporation Committee were then by resolution "approved, ratified and confirmed," and in addition the Association placed on record "its appreciation of the legal counsel of the firm of Kadel, Wilson & Potts, and in particular of Abraham Wilson, Esq., and Milton Winn, Esq., who have provided not only technical knowledge but also sympathetic understanding of the problems of a learned society which the Association values far beyond their generously moderate professional fees."

The President then submitted for the consideration of the meeting the set of proposed Bylaws prepared by the Committee of Incorporation which had previously been submitted to all members by mail in advance of the meeting. After free discussion and consideration, the proposed Bylaws were then adopted, with one amendment recommended by the Council providing that the President, rather than the Council, should appoint the Membership Committee.[3]

The Secretary then presented the financial report for the last complete fiscal year, which was approved on motion of the auditors and is here presented in abstract.

REPORT ON THE FISCAL YEAR 1956/57

Ending 31 October 1957

Classified Statement of Receipts and Expenditures

1 November 1956—31 October 1957

General Operating Fund

Receipts:

Balance on hand, 1 November 1956	$ 206.09
Membership dues	3,540.36
Miscellaneous	51.18
	$3,797.63

[2] Published in this *Bulletin*, May-June, 1958, pp. 249-255.

[3] The Bylaws as adopted were published in this *Bulletin*, May-June, 1958, pp. 256-262.

EXPENDITURES:

Subscriptions to *Bulletin*		$2,831.34
Office expenses		198.90
Honors and Awards		
Osler Medal	$ 66.26	
Garrison Lecture	100.00	166.26
Bibliography of History of Medicine		52.96
		$3,249.46
Balance on hand, 31 October 1957		548.17
		$3,797.63

PRESIDENT'S DISCRETIONARY FUND

RECEIPTS:

Balance, 1 November 1956	$ 325.00

EXPENDITURES:

Incorporation Committee, expenses	$ 27.88
Balance, 31 October 1957	297.12
	$ 325.00

STATEMENT OF BALANCE

31 October 1956

ASSETS:

Cash on hand		$ 531.09
Accounts receivable		6.00
		$ 537.09

LIABILITIES:

Accounts payable	$ 35.84	
1957 dues prepaid	16.00	51.84

NET WORTH:

President's Discretionary Fund	$325.00	
Donated Surplus	160.25	485.25
		$ 537.09

31 October 1957

ASSETS:

Cash on hand	$ 845.29
Accounts receivable	$ 6.00
	$ 851.29

LIABILITIES:		
Dues prepaid		28.00
NET WORTH:		
President's Discretionary Fund	$297.12	
Donated surplus	526.17	823.29
		$ 851.29

The Secretary further reported that the number of members at the beginning and end of the fiscal year were:

	Nov. 1, 1956	Oct. 31, 1957	Net change
Constituent Society	25	26	1
Honorary	8	7	(1)
Active	488	505	17
Nonresident	16	17	1

The Secretary then reported on the proceedings of the Council at its meeting on May 22, including the technical steps required by the incorporation of the Association. He further reported that the Council had voted to accept the invitation of the Cleveland Medical Library Association, the Cleveland Health Museum, and the Handerson Medical History Society to meet in Cleveland in 1959.

After passing the necessary resolutions to transfer the membership, assets, and obligations of the old unincorporated Association to the new incorporated Association, the members then proceeded to the election of officers and members of the Council. The following persons, duly proposed by the Nominating Committee, were unanimously elected:

For President, to serve two years: Owsei Temkin

For Vice-President, to serve two years: Chauncey D. Leake

Members of the Council

To hold office for one year:
Saul Jarcho
Ralph H. Major
Lloyd G. Stevenson
J. I. Waring

To hold office for two years:
Iago Galdston
Samuel X. Radbill
Frank B. Rogers
Ilza Veith

To hold office for three years:
George W. Corner
William F. Norwood
Dorothy M. Schullian
Elizabeth H. Thomson

The meeting then proceeded to adopt as the seal of the Association the identical seal adopted by the unincorporated Association in 1935,[4] except that the words around the outside shall be "American Association for the History of Medicine, Inc. 1958" and the words "Founded 1925" shall be added to the central design below the pedestal.

The Secretary then presented to the membership the following financial statement from the Johns Hopkins University relative to the *Bulletin of the History of Medicine*.

THE JOHNS HOPKINS UNIVERSITY
Baltimore 18, Maryland

Office of the Treasurer Homewood . March 24, 1958

BULLETIN OF THE HISTORY OF MEDICINE

RECEIPTS AND DISBURSEMENTS
FOR YEAR 1957

RECEIPTS:		
Subscriptions—Members A. A. H. M.	$2,810.50	
Subscriptions—The Johns Hopkins Press	2,461.40	
Single Issues	946.50	
Reprints	472.87	
Advertising	85.00	
Miscellaneous Income (Index)	1.50	$6,777.77
DISBURSEMENTS:		
Printing—Issue #1	$ 997.27	
Printing—Issue #2	914.13	
Printing—Issue #3	967.47	
Printing—Issue #4	1,002.81	
Printing—Issue #5	1,089.71	
Printing—Issue #6	1,075.95	
Additional Reprints	477.68	
Commission to Press	2,192.40	
Commission to Sales Agents	59.33	
Assistant Editor	2,963.00	$11,739.75
FUNDS EXPENDED BY THE JOHNS HOPKINS UNIVERSITY		$ 4,961.98

THE JOHNS HOPKINS UNIVERSITY

S. W. APPLEBAUM
Assistant Comptroller

[4] See this *Bulletin*, 1953, *27*, opp. p. 344. The Secretary is pleased to report that it has been possible to make the necessary modifications to the seal generously donated to the Association by Dr. David A. Tucker, Jr., in 1953.

At the conclusion of this report, the members by resolution directed the Secretary "to write a letter to the proper authority expressing the gratitude of the American Association for the History of Medicine for the contribution that The Johns Hopkins University has made to our continued fruitful existence."

Dr. Genevieve Miller then presented the following report:

Committee on the Bibliography of the History of Medicine of the United States and Canada.

The Bibliography for the year 1956, numbering 33 pages, was published in the November-December, 1957, issue of the *Bulletin of the History of Medicine*. The following members of the committee conscientiously and efficiently contributed to its compilation: Dr. Milton B. Asbell (dentistry), Dr. Whitfield J. Bell, Jr., Mr. Philip M. Benjamin (general American history), Dr. George J. D'Angelo (general medicine), Dr. W. W. Francis (Canadian medicine), Dr. Glenn Sonnedecker (pharmacy). Additional references were sent by individual members of the Association and by a number of medical librarians interested in our project.

Special reprints made of the Pharmacy section were distributed by the American Institute of the History of Pharmacy to Schools of Pharmacy throughout the country, and the Institute is also exploring the possibility of combining and reprinting all the Pharmacy sections which have been published since the inception of the Bibliography in 1940. Likewise the American Academy of the History of Dentistry distributed separate reprints of the Dental section to its members.

In order to place the Bibliography in the hands of more potential users, copies of the 1955 and 1956 issues have been sent to all medical school libraries in the United States and Canada and to prominent local historical society and public libraries, numbering 225 altogether.

Respectfully submitted,
GENEVIEVE MILLER

The President then asked the Secretary to announce the awards for the current year, whereupon the Secretary read the following reports, which had previously been adopted by the Council.

William Welch Medal

The Welch Medal Committee has reviewed the principal works in the history of medicine which have been published during the last five years and proposes that the medal be awarded to Charles F. Mullett for his book *The Bubonic Plague and England; an Essay in the History of Preventive Medicine*. In this volume the details of epidemiologic history, laboriously collected, have been used as a paradigm by which the author has been able to trace the evolution of concepts of preventive medicine through the centuries. Thus the work in the opinion of the Committee transcends the limits of a monograph on a single disease and takes the rank of a contribution to intellectual history. The Committee feels that this book deserves to be honored by the award of the Welch Medal.

W. F. NORWOOD
S. C. THOMSON
ILZA VEITH
SAUL JARCHO, *Chairman*

William Osler Medal

The William Osler Medal Committee has examined ten essays submitted from the states of Florida, Georgia, Kansas, Kentucky, New York, Ohio, and Wisconsin and from the province of Quebec. It recommends that the Medal be awarded to Dr. D. G. Lawrence of Montreal for his essay "'Resurrection' and Legislation, or Body-Snatching in Relation to the Anatomy Act in the Province of Quebec." Dr. Lawrence was graduated in June, 1957, from the Faculty of Medicine of McGill University. It further recommends that Honorable Mention, together with a one-year subscription to the *Bulletin of the History of Medicine*, be awarded to Dr. George J. Hill II, graduate of the Harvard Medical School in June, 1957, and now intern at The New York Hospital, for his essay "Cancer Research in the Mid-Nineteenth Century (1840-1870)," and to Mr. G. J. Tucker of the Class of 1960, School of Medicine, Western Reserve University, for his essay "Hysteria: Polemic and Mirror to the Eighteenth Century Intellectual Environment."

The Committee extends its thanks to those journals which have carried announcements of the contest this year and to all members of the Association who have fostered among students an interest in the history of medicine, in the proper use and evaluation of source materials, and in good writing.

Respectfully submitted on behalf of the Committee, consisting of Dr. George J. D'Angelo, Prof. Charles D. O'Malley, and

DOROTHY M. SCHULLIAN, *Chairman*

The Secretary then received the following reports from the Constituent Societies.

American Institute of the History of Pharmacy

The American Institute of the History of Pharmacy held its annual meeting at Los Angeles, Calif. (April, 1958), consisting of a business session, a historical session, and Council meeting. Dr. Glenn Sonnedecker—who succeeded Dr. George Urdang as executive head of the Institute (1 July 1957)—spoke for continuing the organizational pattern that has developed since 1941, yet extending the scope and appeal of established activities and obtaining additional part-time staff in the Institute's office at the University of Wisconsin.

Activities and publications during the year may be summarized as follows:

Publications distributed to members included the Annual Report, published as a printed booklet for the first time; a pharmaco-historical calendar reproducing six historical pictures in full color; five historical pamphlets and reprints; and three numbers of the Institute's mimeographed newsletter. Plans have been announced for expanding the newsletter in printed form under the title, *Pharmacy in History*.

Among other activities have been continued distribution of the Institute's booklet, "Pharmacy's Part in Society," to high school libraries upon request; extension of a new loan service on "slide lectures" to include several additional titles; effort to get documentary materials of pharmaceutical history into reference collections of the Institute or into other depositories; and publication of several articles by the Director and Director-emeritus.

Preceding the retirement of Dr. Urdang as Director, a 75th birthday dinner honoring him (13 June 1957) was held on the University of Wisconsin campus.

An oil portrait of Urdang (commissioned by Parke, Davis and Co.) was unveiled and will hang permanently in the Institute's office.

To the A. A. H. M. the Institute again contributed the pharmacy section of the annual bibliography, and it distributed reprints of the complete bibliography to all American schools of pharmacy. Upon recommendation of the American Society of Hospital Pharmacists the Institute issued a brochure titled "Some Bibliographic Aids for Historical Writers in Pharmacy." For the 16th consecutive year it published monthly historical pages in the journal, *American Professional Pharmacist.*

In the field of exhibits, an exhibition on the theme, "Drugs of the Virginia Colony," was designed in collaboration with the Pharmacy Exhibit Committee of the Jamestown Festival, for display at Richmond. At the Fourth Pan-American Congress of Pharmacy and Biochemistry—at which the Director served as Secretary of the historical section—the Institute exhibited on the theme of pharmaco-historical endeavors as an international movement. This exhibit in portable form was shown later at the American Pharmaceutical Association meeting and now has been made available to pharmacy school libraries.

The Institute designated the productive Dutch pharmacist-historian, Dirk Arnold Wittop Koning, to receive the fourth Urdang Medal, an international award for historical writing.

The new Director presented addresses, papers, or otherwise participated at eleven meetings or symposia during the year—local, national, and international.

The particular historical interests of the Institute's members were surveyed for the first time; and the results will be published as part of the Annual Report, which will be sent to members of the A. A. H. M. requesting it.

GLENN SONNEDECKER, *Director*

Benjamin Waterhouse Medical History Society

Six monthly meetings were held from October 1957 through April 1958. The list of papers presented follows:

October 28, 1957:	Dr. Arthur M. Lassek, "John Hughlings Jackson: His Personality and Neurological Stature"
November 25, 1957:	"William Harvey, Circulation of Blood" (motion picture)
January 20, 1958:	Dr. Bernard Appel, "History of Syphilis"
February 17, 1958:	Mr. Jerome Waye (student), "The History and Development of Chinese Medicine"
March 18, 1958:	Dr. Chester S. Keefer, "The Elephant Man"
April 29, 1958:	Dr. Whitfield J. Bell, Jr., "The Establishment of the Medical Profession in America, 1762-1768"

Membership has increased over that of the prior year by the acquisition of approximately 30 new members, giving a total of 84.

The new slate of officers for next year consists of the following:

President	Dr. Lamar Soutter
Vice-Presidents	Mr. George Thornton
	Mr. Arnold Wong
Secretary-Treasurer	Dr. John J. Byrne

JOHN J. BYRNE, *Secretary-Treasurer*

Henderson Medical History Society

The Handerson Medical History Society takes pleasure in submitting its first annual report as a constituent society of the American Association for the History of Medicine. Founded in October, 1953, this Society serves as a forum for anyone in the Cleveland community who is interested in the history of medicine and allied subjects. Meetings are held in the Cleveland Medical Library which also provides through its Dittrick Museum of Historical Medicine and its rare book collections, ample material for exhibits ancillary to meetings of the Society.

During the academic year 1957-58 five meetings have been held featuring both local and visiting lecturers who presented the most diversified programs. In October, the Secretary-Treasurer presented a pictorial description of a visit to Greece and especially to the Island of Cos which she made in August, 1956. In November, Dr. Salvador Franco-Browder of Mexico City discussed Aztec Medicine. In January, Mr. Morris Leikind of the Armed Forces Institute of Pathology in Washington spoke on the "Post-mortem Adventures of John Paul Jones," while in March another Washington visitor, Dr. John B. Blake, gave a critical evaluation of Dr. Benjamin Waterhouse. The concluding session in May was a dinner held in honor of the venerable Dean Emeritus of Western Reserve University School of Medicine, Dr. Torald Sollmann, who discussed "Claude Bernard as a Dramatist."

GENEVIEVE MILLER, *Secretary-Treasurer*

The Johns Hopkins Institute of the History of Medicine

A report of the activities of the Institute during the academic year 1957-58 was published in this *Bulletin*, July-August, 1958, pp. 370-72.

The Johns Hopkins Medical History Club

During the past academic year, the Johns Hopkins Medical History Club met on May 16, 1958, at a farewell dinner in honor of Dr. and Mrs. Richard H. Shryock. The dinner was arranged in cooperation with the Department of History of the Johns Hopkins University.

OWSEI TEMKIN, *Delegate*

Ohio Academy of the History of Medicine

The annual meeting of the Ohio Academy of the History of Medicine was held in Cincinnati, April 26, 1958. The program included ten papers and a special exhibit of plans of the David A. Tucker, Jr. Library of the History of Medicine, University of Cincinnati College of Medicine.

The Academy reports with deep regret the deaths of three of its faithful members: Mr. John O. Marsh on April 7, 1958, Dr. David A. Tucker, Jr. on June 2, 1958, and Dr. Clyde L. Cummer on June 8, 1958.

Officers for the coming year will be Dr. Chauncey D. Leake, President, and Dr. Linden F. Edwards, Secretary-Treasurer. The total membership in the Academy is 55.

Although it is likely that the Academy will continue to be affiliated with the Ohio Historical Society, a movement is afoot to hold our annual meetings hereafter with the Ohio State Medical Association, with the hopes of stimulating the interest of its members in the medical history of Ohio.

LINDEN F. EDWARDS, *Secretary-Treasurer*

Society for the History of Medical Science, Los Angeles

The Society for the History of Medical Science held its first general meeting on October 10 when Dr. Chauncey Leake, Ohio State University College of Medicine, presented his "Letheon, the Cadenced Story of Anesthesia." Dr. Mary Brazier of the Massachusetts General Hospital spoke on "The Electrical Activity of the Brain: Its Historical Background" at the winter meeting, and Dr. Charles O'Malley from Stanford University gave a lecture on "Anatomical Studies in Tudor England" at the spring meeting. At the final meeting of the year, held in May at the Beverly Hills Club, members met for dinner preceding an illustrated lecture on "Medical Concepts in the Middle Ages: Pre-Christian Sources and Eighteenth Century Survivals" presented by Dr. Barry Anson of Northwestern University Medical School.

The John Fulton Medal and a monetary prize were awarded to Dr. Drake Will, UCLA Resident in Pathology, for his essay on "The Medical and Surgical Practice of the Lewis and Clark Expedition." This is the second time the medal has been awarded since the Society initiated the John Fulton Medal Competition in 1955. The winning paper has subsequently been accepted for publication in the *Journal of the History of Medicine*. A leaflet and poster have been designed for distribution to medical schools and hospitals in Southern California in order to publicize the competition for 1958/59 more effectively.

Reprints from Dr. Jones' "Tobias Smollet (1721-1770)—The Doctor as Man of Letters," *Journal of the History of Medicine*, 1957 were distributed to members at the winter meeting. This paper was originally given at the Society's spring meeting in 1956.

The membership this year totalled 206 of which 145 were active members, 45 associate members and 16 honorary members. Officers for the year were Dr. Robert Moes, President, Dr. Roger Egeberg, Vice-President, Miss Louise Darling, Secretary, Dr. Charles Carpenter, Treasurer, and Mrs. Viola Warren, Archivist. Dr. Charles Tidd served as Program Chairman and Dr. Moes as delegate to the annual meeting of the American Association for the History of Medicine.

LOUISE DARLING, *Secretary*

Society of Medical History of Chicago

The following is a report of the activities of the Society of Medical History of Chicago during the past year:

October 9, 1957: Ilza Veith, Ph. D., Associate Professor of the History of Medicine, University of Chicago, "Concepts of Psychic Functions—East and West"

Noah D. Fabricant, M. D., Clinical Assistant Professor of Otolaryngology, University of Illinois College of Medicine, "Franklin D. Roosevelt, the Common Cold and American History"

November 13, 1957: Carroll L. Birch, M. D., Professor of Medicine, University of Illinois, College of Medicine, "Subsequent History of One of Leeuwenhoek's Animalcules"

Lester S. King, M. D., Clinical Professor of Pathology, University of Illinois, College of Medicine, "Medical Ethics in the Eighteenth Century"

December 11, 1957: J. Garrott Allen, M. D., Professor of Surgery, University of Chicago, School of Medicine, "The Story of Phlebotomy and Transfusion"
Frederick Stenn, M. D., Assistant Professor of Medicine, Northwestern University Medical School, "What is the True Symbol of Medicine?"

January 15, 1958: Lester R. Dragstedt, M. D., Chairman, Department of Surgery, University of Chicago, School of Medicine, "Siamese Twins"
Alan Richardson, Dept. of Religion and Health, University of Chicago, Clinics, "Cotton Mather, Colonial Theologian and Physician"

February 12, 1958: Kathleen Worst, Librarian, American College of Surgeons, "Stephen Hales, Parson-Physiologist"
Leo M. Zimmerman, M. D., Chairman, Department of Surgery, Chicago Medical School, "Henri de Mondeville, Revolutionary, Iconoclast, Idealist and Surgeon"

March 12, 1958: André Barbeau, M. D., Dept. of Medicine (Neurology), University of Chicago, "History of Involuntary Movement"
Joseph H. Kiefer, M. D., Head of Division of Urology, University of Illinois, "Uroscopy—The Clinical Laboratory of the Past"

A very encouraging feature of the year's activity is the increasing interest and attendance, particularly, of younger members of the medical community.

LEO M. ZIMMERMAN, *Secretary-Treasurer*

On motion duly made and seconded, it was then

Resolved, That this Association expresses its appreciation to the New York Academy of Medicine and the Rockefeller Institute for Medical Research for their generous hospitality to the members of this Association.

This resolve having been carried by acclamation, and there being no further business, the meeting was adjourned.

JOHN B. BLAKE, *Secretary-Treasurer*

TEXTS AND DOCUMENTS

LETTERS CONCERNING AN OPERATION FOR CATARACT, PERFORMED BY DR. CORNELIUS R. AGNEW, 1869.

EDITED BY
ISABELLA KNOX RHODES

The following family letters are here published as far as they deal with the operation for cataract performed on John J. Knox of Oneida County, N. Y., aged 78. The author of the letters was the Reverend Charles E. Knox of Bloomfield, N. J., a son of the patient. The patient's brother had traveled to Berlin for the same operation a year or two earlier.

Bloomfield June 7th 1869.

Dear Brothers and Sisters all. Adelaide has sent this circular back to me. I am glad she has for I can tell you all, about the thing we are most interested in now: the operation on our Dear Father's eye. There is every prospect of an entire success, so Dr. Agnew told me on Wednesday, after he had taken off the plaster strips. —Father and Mother came from Albany on Tuesday night the 25th with Mr. Strong. Uncle James, Mr. Williams & myself met them at the Fifth Avenue Hotel at 10 o'clock Wednesday morning, from which place, Uncle & I went with Father to see Dr. Agnew. We had an hour or more to wait in the reception room. The Dr. promptly pronounced the disease cataract, and after inquiring in respect to his health, habits etc. said that the chance of success was about 92 or 93 percent. The sooner the operation the better, if it was to be done before warm weather. His rule is not to operate after the 10th of June, on account of heat. FEE, whether successful or unsuccessful $500. We concluded by appointing Friday afternoon as the time for the operation.

Dr. Agnew is a young man of 39 years. —shorter than I, with a good strong head, black hair & full beard, except the mustache. —He directed us to a boarding place at hand, but which we found full, but by it we found another at 162 West 36th St. which the Dr. visited with me and pronounced wellsuited to the operation. —a back parlor on the first floor, with a bed and a cot. —This done, baggage changed etc. Father and Mother came with me to Bloomfield, for the night & where we passed the memorable day of the discussion of reunion in the two Assemblies [of the Pres-

byterian Church—I. K. R.].—At night on Thursday, they were comfortably established in their boarding house, which has proved a nice place for them. —And on Friday afternoon at about 1 oclock the operation was performed. I will try to give you some idea of it. Uncle James & I were the only persons present besides the Drs.' two assistants. It was thought best on the whole to give Father cloroform [*sic*], and we were glad afterward, as the operation proved a long one—after the incision. A cot was placed across the back parlor in front of the back windows, with the head towards the right hand window, the left eye on which the operation was to be performed being away from the window, but turned so as to give full light. —After administering the cloroform, one assistant held his head firm & the other & I prevented his hands from moving. First then a little instrument something like a pair of silver sugar tongs, like this somewhat—to keep the eye lids open—was used.

The dotted lines at the points of the ends of the instrument represent little flanges which go under the eyelids.— I am free to say that the above sketch does not do justice to the paternal *nose*. —A little screw over the nose held the instrument & the eyelids firm. The eyeball was held firm & turned in position by another more delicate tongue-and-tweezer like instrument and the knife introduced from the outside end of the eye, like this:

The knife has but one edge, is about an eighth of an inch wide & an inch & a quarter long set in an ivory handle. It is inserted just at the edge of the cornea or outside lense [*sic*] and I suppose passes *under* the *iris* or curtain of the eye. The knife was then pushed steadily in until the point came out on the opposite side of the cornea, like this:

And then pressed firmly downwards until the knife came out at the lower edge of the cornea, like this:

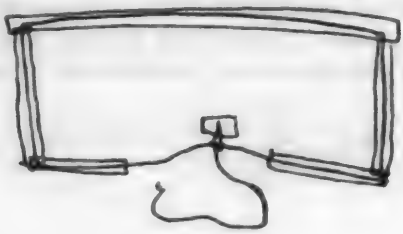
The incision or " section " as I think it is called, was, then, a curve or arc of perhaps one fourth the circumference of the cornea.

Now the work was to get the crystalline lens out of the incision, which as father's eye was somewhat sunken proved more difficult than usual. By little hooks and silver instruments somewhat in shape like a furnace-man's tonging irons, the eye ball above & below & within was manipulated, until *at last,* the lense [*sic*] darted out on his cheek & fell down by the side of his face in shape & size like a small, flat cherry stone. There was not least sign of pain during the operation, except one slight twinge when the Dr. clipped the incision with the scissors to enlarge it a bit.

The eyes were then closed, after the little blood was washed off— and fastened with strips of plaster, like this

and then like this

and then a piece of white cloth laid over and afterwards a piece of black silk, the edges of which were pasted down tight, like this.



And then the goodman was exhorted not to speak or move at all. But as for some 78 years he had run about a good deal, it was difficult for his feet & legs to keep still, as your humble servant found who watched him during the night. Dr. Agnew doesn't darken the room, except to shade it & to forbid sudden flashes of light. Neither does he change the food very much. He permitted father to have beef the next night cut fine so that he shouldn't chew or use the muscles of his face.

Father has had no pain at all in his eye. There seems to have been no inflammation whatever. He had some headache arising from the cloroform. So far as we can see, there is every prospect of entire success. —We hope to have him over here next week, looking about. When the Dr. took off the strips on Wednesday, & permitted him to look for a moment, he saw the Dr's fingers. —Sarah & I are going in this afternoon to inquire how he is.

We are all well.

We think we were cheated out of the Vernon folks, but we propose to make it up, by having as much as we please of Father & Mother.

We do not expect to come to Oneida County in August—

with love to all.

C.E.K.

162 West 36th St. Afternoon 4 oclock

P. S. We find that Dr. Agnew has been here to-day and leaves Father now with the black silk shade hanging loose over his eyes. Father sees us all, Sarah, Charlie & Mary as we sit around him. —The Dr. expresses satisfaction with the prospect and I think there can be no doubt of entire success. Of course no reading can be done without spectacles—But we all have reason to congratulate each other on the result.

Bloomfield N. J.
Thursday July 8th 1869.

Dear Brothers and Sisters,

The circular returns from its irregular course just in time for me to give you the account of the second operation on Father's eye. The first operation was on Friday the 28th of May. On Wednesday the 16th of June, Father & Mother came to Bloomfield, where they have been till this week Tuesday, the 6th of July—the day appointed by Dr. Agnew for a further examination. Father has been entirely well. The eye has

been recovering itself—the redness & inflammation disappearing—and the white ball resuming its natural color. The only treatment has been the drops of *atropine*—a preparation of belladonna, used I suppose to keep the eye cool & to dilate the pupil. Uncle James says it is used by eastern beauties to make the eyes handsome.

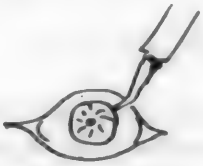
Father, Mother, Emma & I went in on Tuesday, —all to Cordele's boarding house—*344 West 14th St.*, where Cordele had arranged for a room for Father & Mother. Father & I posted off to Dr. Agnew's office, and after a while got admission to the Dr. He tried the spectacles—and handed father "The Lives of the British Poets" open at the title page. The other eye was covered with a piece of paper. Father said at once "*British Poems.*" He then turned over a leaf. Father at once read "*Preface.*" The finer print he did not at once read. His hand trembled and he couldn't '*focalise*' the print to his eye. He picked out some words soon. 'Shakespeare' & 'Shakespeare's Plays.' The Dr. said it was a wonder that he could read at all, inasmuch as the capsule extended completely across the pupil and there were no holes through it. The explanation of the second obstruction is as follows: The knife in the first operation is introduced in *front* of the *iris* or curtain & not behind it, as I wrote in the last circular. The little hook introduced after the knife is to tear the capsule, —the thin—tender membraneous sack in which the lens is. Then the lens is pressed out as you squeeze the stone out of a plum, and an opening is left as the plum stone leaves an opening in the pulp of the plum. This opening—a narrow slit,—sometimes remains open for years & sometimes closes & heals at once. No man can tell which it will do. If it remains open, the eye can see at once, as Uncle could. When it closes sooner—as in Father's case—or later—as in Uncle's case—another operation is necessary to break up or tear away this tender capsule. When the opening closes & heals, it makes a thread-like cob-web across the pupil, or a fleck in the center of the pupil, more opaque than the rest of the capsule, directly in the line of vision. —The Dr. said the chance of cure & a good eye, was 99-½ percent. As to the time of doing it, "I should like to send you home," said the Dr.—"triumphant to your village, to sound my praises, but I shall not be induced by that to do it sooner than is best."

After consultation with his partner Dr. Loring, & on finding that we were all ready for the operation, he appointed from 4 to 5 oclock that afternoon as the time. And we posted off to make ready.

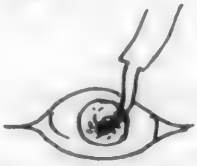
Between 4 & 5, he came to West 14th St. bringing with him a young Dr. Parker son of Dr. Willard Parker. Dr. Loring came soon after. He

gave no cloroform. The cot was as before. The instrument for holding the eyelids was put on as before— Dr. Agnew between him & the window. The instrument next used was a tapering-bodkin-shaped, double edge knife bent like a large twine-needle, something like this:

This was introduced on the upper half of the eye, at the edge of the cornea, like this



and pressed in under the cornea, in front of the iris till the point entered the pupil & pierced the capsule, which is close behind the iris—so that it was like this.



When this knife or needle was withdrawn, a watery fluid followed, which was the aqueous & vitreous fluids of the eye, more of the vitreous which is in the back chamber of the eye—than of the aqueous, which is between the iris & cornea. After this incision was made, a little loop of silver wire like this

was introduced through the incision & twisted between thumb & finger an instant till the loop caught the membrane, when it was withdrawn. Dr. Loring stood ready with the scissors to clip the membrane if it should attached to the loop [*sic*]. The operation was done.—A drop or two of

atropine was put in, a square piece of muslin, wet with cold water was laid on, a tuft of cotton wool laid over it, a bandage of muslin-strips, pinned around his head & over his top & under his chin. He then got up on his feet till we moved the cot to a shady side of the room. —The operation was much shorter than before. Father said he did not suffer; that the pressure on the ball, was the most that he felt. I think I will run in tomorrow afternoon & see how he gets on. —He was to have the same diet as before. As soon as he can bear the light enough to choose his glasses he will go home, although he will not be able to use his glasses much for some time. . . .

Affectionately

Charles E. Knox.

P. S. Monday, July 12th 344 West 14th St.

Thanks to Emma's daily notes, I did not come over last week after the operation. Dr. Agnew has made daily visits, removing the bandages on the second day after the operation and leaving only the black shade over the eyes. He has been here this morning with the spectacles and Father saw the Dr.'s face distinctly. He has consented that they may go up the river to-night. And as they cannot get a state-room, he has consented reluctantly that they may go by the cars. Jay is here on his way to commencement. That is most happy, as he can care for them all. —Care must be taken against exposure to the light. The following are the Dr's written direction committed to Emma's care. " I would advise that you should get home with the least possible exposure to light, as the eye is still sensitive. I would wear a light bandage over the eye on the way to the boat and also on the railroad. I would avoid strong light for ten days to come, going out in the shade of the early morning & late afternoon. The *atropine* drops should be used twice a day for a week, then once a day for a week, at the end of which time, you may begin to use the glasses about one-third of the time. —It will be difficult to see with the glasses until they have been worn a week or so. You must observe a great caution in the use of the eye—and at any time resume the drops should the eye inflame or become painful. A day or two of quiet & use of a cold water dressing on the eye may be necessary, if inflammation should occur."

I have seen the Dr. since & he says that Father has a good clear pupil. We may all be delighted with the success, for nothing more remains now to be done but have good sensible care of the eye. Thanks to modern

science and to the God of science & of nature for the blessed light again! —The following note, interesting to those of you who expect to have cataract and who may wish to get ready for that happy time—will explain itself.

" July 12th/69

My dear Mr. Knox. I send herewith my account, charging you five hundred dollars for extracting the cataract and one hundred for the secondary operation. I have receipted the first bill for five hundred and left the other so that you may, if more convenient send the amount to me from your home. With best wishes for your prosperity, I am, dear Sir,

Yrs truly,

Dr. C. R. Agnew "

Well—$600 is some money for a poor man, but a good eye is rather more in my opinion. It's time for the carriage shortly.

with love to all

C. E. K.

NOTES AND COMMENTS

AN 18TH CENTURY SCIENTIST'S OBSERVATION OF HIS OWN APHASIA *

H. E. HOFF, R. GUILLEMIN, AND L. A. GEDDES **

Pursuit of the early history of graphic recording and instrumentation in Physiology [1, 2] has led us to an account of a transitory episode of aphasia suffered by Jean Paul Grandjean de Fouchy, Permanent Secretary of the Académie des Sciences from 1743 to 1776, which he described in the *Histoire de l'Académie*.[3] Beyond its timeliness as an early example of a fleeting attack with sharply circumscribed symptomatology, it may be worthy of note as an addendum to Walter Riese's translation of Lordat's report of his own aphasia, published a number of years later; [4] it is well enough known in France. We have translated it as follows:

The first of the circumstances that have kept me away from the Academy for rather a long time was accompanied by a phenomenon which seemed to me to merit communication to the Academy.

Last March 24th, after leaving Mr. Anisson's where I participated in the inspection of his new press, I was returning home, toward seven o'clock in the evening, and it was beginning to be somewhat dark. While crossing the boulevard, at that time very upset by the paving around the Comédie Italienne, and by the ditches for the pipes, a paving block half-elevated from its place caught my foot and made me fall forward and a little to the side, my face on a heap of broken sandstone blocks which was lying there. The blow fell mainly on the vomer and the corner of the orbit of the right eye; the skin over the

* Supported by Grant Number H-1757, National Heart Institute, National Institutes of Health.

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[1] H. E. Hoff, and L. A. Geddes, "The rheotome and its prehistory: a study in the historical interrelation of electrophysiology and electromechanics," *Bull. Hist. Med.* 1957, *31*: 217-234, 327-347.

[2] H. E. Hoff, L. A. Geddes, and R. Guillemin, "The anemograph of Ons-en-Bray: an early self-registering predecessor of the kymograph with translations of original description and a biography of the inventor," *J. Hist. Med. & Allied Sc.* 1957, *12*: 424-448.

[3] Jean Paul Grandjean de Fouchy, "Observation anatomique," *Histoire de l'Académie Royale des Sciences*, 1784. Paris, Imp. Roy., 1787: section "Mémoires," 399-401.

[4] W. Riese, "Auto-observation of aphasia reported by an eminent nineteenth century medical scientist," *Bull. Hist. Med.* 1954, *23*: 237-242.

vomer was cut, and it bled considerably. At the moment of the blow I felt a sharp pain which extended to the left eye; but I experienced no confusion or nausea. I got up at once and continued my journey, holding my handkerchief over the cut on my nose, which caused me much pain. Arriving home, I washed this cut, which no longer bled, with warm wine, and the pain gradually diminished enough that it did not prevent me from sleeping. The next morning it was bearable, and I remember noticing that I felt it distinctly in two localities, that is, on the vomer, and above the left eye, which had not at all suffered the blow; that of the vomer was accompanied by a particular circumstance which lasted a long time; that is, when I pressed, even lightly, with my finger on the vomer to the right or left, I felt a slight internal crepitation, as though the articulation of these bones with those of the face had suffered. Up to this time I had noticed nothing unusual, I even went out and did not return until dinner; but the following is what was unusual, and which seemed to me to deserve consideration:

Toward the end of dinner, I felt a little increase of pain above the left eye, and in that very instant I became unable to pronounce the words that I wanted. I heard what was said, and I thought of what I ought to reply, but I spoke other words than those which would express my thoughts, or if I began them I did not complete them, and I substituted other words for them. I had nevertheless all movements as freely as usual, I did not drop my fork or a piece of bread which I was holding; I saw all objects clearly, I heard distinctly what was being said; and the organs of thought were, it seemed to me, in a natural state.

This sort of paroxysm lasted about a minute, and during its course my mind was clear enough to notice this singular distinction in the sensorium, which had only a single one of its parts affected, without any of the others experiencing the least derangement.

When M. Vicq-d'Azyr read, at the meeting of the Academy on last April 30th, his memoir on the comparative anatomy of the brain of man and of other animals, I was struck by what he said regarding the nervous filaments which, leaving the brain, pass through the cribriform bone to reach the interior of the nose. I believe to perceive there the cause of the state in which I found myself, these filaments having perhaps been shaken by the blow received by the vomer, and having transmitted their commotion to the brain; but I found there no reason at all for the unusual phenomenon of the sensorium being affected in a single one of its parts, without the others being involved in any manner. I restrict myself here solely to the fact, which I thought I ought to communicate to the Academy, and to consign it, if it judges it appropriate, to its records. An observation of this kind must be extremely rare, since it requires that a scientist [*physicien*] be its subject, and that the accident be not serious enough to prevent him from observing all the circumstances. Nevertheless, whatever zeal I have for the advancement of the Sciences which are the objects of the

Academy, I hope that it will easily pardon me for not wishing often to present similar reports.

In the preceding paragraph de Fouchy described himself as a *physicien* which must not be translated as " physician." Today it means " physicist," but in his time the word had wider application, implying a broad interest in " natural philosophy." De Fouchy was, as a matter of fact, an astronomer, but his background, his circle of friends, and his occupation as permanent secretary of the Académie des Sciences perhaps justify our use of the term " scientist."

De Fouchy was born on March 17, 1707, and was a descendant of a noble family of Macon. His father, Philippe, is best known under his patronym Grandjean for his service as Typographer to Louis XIV at the Imprimerie Royale from 1693 to 1745, where he revised the older type faces of Garamond and created new designs of considerable significance in typography.[5] The young Jean Paul was trained to succeed his father, who hoped that he might be commissioned by the King to complete the father's work by the design of new type for Hebrew. This project failing to interest the King, the son found occupation as an accountant. His patrimony, however, made it possible for him to afford the time to cultivate an interest in the sciences. The King's continuing interest in the family is no doubt demonstrated by Jean Paul's election to the Academy of Sciences in 1731, when only 24 years of age, as an Astronomer. His contributions in this field consisted principally in the designing of simple but effective astronomical instruments to replace more complicated or costly apparatus without sacrifice of essential accuracy. He is mainly remembered, however, for his long and zealous service, from 1743 to 1776, as Permanent Secretary of the Academy, and for his *Eloges,* traditionally accorded deceased members of the Academy. If these obituaries lacked perhaps the literary merit of those of other Secretaries, wrote Condorcet, who assisted him in the last three years of his office and succeeded him, they were universally respected for the " simplicity, truth, and exactitude which were the principal characteristics of his portraits." [6]

De Fouchy was recognized by his friends as a poet of considerable merit; his works were circulated only among them and were destroyed

[5] E. C. Bigmore and C. W. H. Wayman, *A bibliography of printing with notes and illustrations. A-L.* London, Quaritch, 1880, 12 + 449 pp.

[6] Marie Jean Antoine Nicholas Caritat, Marquis de Condorcet, " Eloge de M. de Fouchy," *Histoire de l'Académie Royale des Sciences. 1788.* Imp. Roy. 1791. 37-49. *Also in Oeuvres complètes de Condorcet.* Paris, Heinrichs etc., 1804, vol. 4, pp. 3-26.

before his death on April 15, 1788. He loved music, played several instruments, and delighted especially in playing the organ on Sundays in one or the other of the neighboring churches.

In 1783 de Fouchy had been named to a Commission of the Academy, directed to inspect a new printing press built at the Imprimerie Royale by the Royal Printer, Jacques Louis Laurent Anisson-Duperon. This press was probably the creation of his son, Etienne Alexandre Jacques, who later described it in a monograph published in 1785 [7] and who was destined to die on the guillotine n 1793 (for reasons we have been unable to ascertain, except that he was one of the printers of *assignats*). Despite de Fouchy's retirement from office, he may well have been appointed to the Commission because of his long association with the printing of the *Histoire de l'Académie*. On the other hand, the reason may have been more personal, for when his father, Philippe Grandjean, first began his career at the Imprimerie Royale in 1692, its Director was Jean Anisson, scion of an important Lyonese family of printers, who did much to revive the reputation of their city for typography; an even earlier Anisson had been one of the ambassadors sent to Rome to arrange the conciliation of Henry IV with the Vatican. All of the directors of the Imprimerie Royale since 1692 had been Anissons, and when in 1814 the old name of the press was restored after an understandable lapse, an Anisson again became Director.[8] The Committee reported on 17 May, 1783, that the new press it had inspected merited the approval of the Academy for its "new and ingenious means of improving printing." The press was a "one-pull press" of extreme faithfulness in registry; priority in its invention would later be claimed by Didot.[8]

At the very same time other events were transpiring in Paris.[9] Begun at the Fairs of St. Laurent and St. Germain, the Opéra-Comique had fused with the Comédie Italienne in 1762, obtained letters patent on March 31, 1780, changing the name to the Opéra-Comique, and set about erecting an adequate theatre. A site was acquired in the gardens of the Duke and Duchess of Choiseul, three new streets were cut to enclose the theatre and a tiny square, later to be known as Place Boieldieu, on which the theatre faced.

[7] Etienne Alexandre Jacques Anisson-Duperon, *Premier mémoire sur l'impression en lettres* suivi de la description d'une nouvelle presse, exécuté pour le service du roi; et publié par ordre du gouvernement. Paris, Moutard, 1785, 40 pp., 4 pl.

[8] Jean Félicissime Adry, *Catalogue chronologique des imprimeurs et libraires du Roy*. Paris, Guiraudet et Jouarest, 1849, 29 pp.

[9] Emile Genest, *L'Opéra-comique connu et inconnu*. Paris, Fischbacker, 1925, 11 + 346 pp.

The streets were named Favart, Marivaux, and Grétry. Charles Simon Favart directed the company at the Opéra-Comique and was then at the pinnacle of his fame, although his productive years were well behind him; Marivaux, dead since 1763, had been one of the most popular playwrights for the Comédie Italienne; Grétry was the favorite composer of the Opéra-Comique, and epitomized its style. Boieldieu was then a boy of eight in Rouen, beginning to show a talent for music; his first production at the Opéra-Comique would not be staged until 1811.

It was the paving of these streets, no doubt, that occasioned de Fouchy's accident, a week after his seventy-sixth birthday. In the early months of 1783 the theatre was approaching completion in readiness for its first performance on April 18, 1783, its 1800 seats a striking indication of the popularity of the Opéra-Comique in the Paris of those days. The name Comédie Italienne remained in popular usage for many years; it was thus natural for de Fouchy to refer to it in this way. The theatre was also known as Salle Favart and still is; the boulevard on which it backed has ever since borne the name of the Italians. Here too the Opéra-Comique still stands, in its third building, completed in 1898.

"Scattered facts and isolated experiments will never form the basis of new theories or new principles," wrote de Fouchy's astute Italian contemporary, the Abbé Felice Fontana,[10] only a year before the events recounted here. Such indeed was the fate of this eighteenth century scientist's observation of his own aphasia.

[10] Felice Fontana, "Lettre de M. l'Abbé Fontana, a M. Gibelin, a Aix-en-Provence, datée de Florence du 10 Juillet, 1782," *Journal de Physique*, 1784, *24*: 417-421.

THE GENESIS OF AN EPONYM

EMANUEL B. KAPLAN*

There is a general and persistent trend to eliminate eponyms from anatomical and clinical nomenclature. The reason for this is a desire for simplification, for the elimination of multiple eponyms, and for more precise terminology.

However, some eponyms which have been used for a long time are much simpler than long descriptive names and serve a definite useful purpose. In anatomy especially, simplification of the terms introduced by succeeding committees on nomenclature contributes to multiplication of terms. This is reflected in clinical writings, where adoption of new terms lags considerably and sometimes produces confusion.

It is obvious that many eponyms should be eliminated as useless and inaccurate, but the eponyms which are known universally must retain their place. Ordinarily, the universal eponyms are intimately related with the history of anatomy and medicine in general. They not only are appropriate as instruments of precision, but serve to incite the curious and investigative mind to further inquiry into original sources.

The genesis of eponyms follows frequently the most bizarre course and is beset by vagaries. It is surprising how often, for different reasons, the described structures bear the names of individuals who never described the structures in question.

Recently, Wartenberg, a famed neurologist, investigated the universally adopted eponym, the Lasègue sign. Together with the signs of Babinski and Romberg, Lasègue's sign is well known in neurology. Whenever the sciatic nerve is involved in connection with lumbar spine pathology, the use of the Lasègue sign is a sine qua non. According to Wartenberg, Ernest Charles Lasègue (1816-1883) published in 1864 in the *Archives générales de médicine* an article entitled: "Considérations sur la sciatique." The contribution was of importance. It was subsequently assumed, without acquaintance with the article, that Lasègue described here his famous sign. However, the article of Lasègue contained absolutely nothing, "not even a hint," about the sign. At his death in 1883, Lasègue had never published anything about it. The first description of the sign in French was given by Lasègue's pupil in Paris in 1881. But one year previous to this publication, in 1880, a Belgrade physician, L. K.

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Lazarevic, published an article in a Serbian medical journal in which a complete description of the sign was given. In 1884, Lazarevic gave a more complete account of the same sign with a correct explanation of the cause. Wartenberg investigated subsequent literature and found no reference to the article of Lazarevic and his contribution to the significance of the test. In a personal investigation, the author of the present study never came across the name of Lazarevic in connection with afflictions of the sciatic nerve.

The preceding lines are given as an introduction to a curious story of another eponym. In a study of the knee, which required anatomical dissections and other research methods, the author had to investigate a few original sources. It was necessary, for instance, to find the original description of the ligament known as Wrisberg's ligament of the knee joint.

A search through literature did not give any indication of the location of Wrisberg's description of this ligament. It was found that the eponym, ligament of Wrisberg, was mentioned almost exclusively in the English literature; no mention of it was made in most of the non-English sources.

Heinrich August Wrisberg (1739-1808), who occupied the chair of anatomy at the University of Göttingen from 1764 to 1808, was a well-known anatomist. All available works of Wrisberg were read and scrutinized by the author to find his original descriptions, but no reference to any knee ligament was found. Wrisberg's *Descriptio anatomica embryonis observationibus illustrata,* published in Göttingen, was considered by some to be the source in question, but did not contain any reference to the knee joint or the ligament.

Contemporary literature was examined for some reference to the ligament. No mention was found in Haller's *Primae liniae physiologiae,* translated into German in 1781 and English in 1786. Haller's *Bibliotheca chirurgica,* published in 1775, eleven years after Wrisberg's affiliation with the University of Göttingen, mentions Wrisberg's name in the index, but the indicated page and other pages have no mention of Wrisberg or his work. Haller's *Bibliotheca anatomica,* published in 1777, lists all Wrisberg's works up to 1775 but does not refer to any syndesmological contributions. In the *Thesaurus dissertationum, programatum,* no indication of Wrisberg's work on the knee joint was found. Sandifort's *Descriptio musculorum hominis,* published in 1781, does not refer to Wrisberg in connection with the knee joint. Henle, who occupied the chair of anatomy at the University of Göttingen years after Wrisberg, does not use the eponym.

In order to find whether there were any other contributions of Wrisberg's

not as yet available, the author communicated with Professor Georg B. Grüber of the University of Göttingen. The possibility of more material pertaining to the work of Wrisberg at the site of his academic activities was considered. Grüber had previously been interested in some phases of Wrisberg's work and made an additional inquiry into this subject but found no evidence that Wrisberg was ever particularly interested in ligamentous structures. Furthermore, Grüber stated that in Pütter's work on the history of the scholars and scientists of the University of Göttingen there is no mention of any work by Wrisberg on syndesmology.

The ligament of Wrisberg is a ligament of the knee joint connecting the posterior horn of the lateral semilunar cartilage with the lateral surface of the medial condyle of the femur. The posterior horn of the semilunar cartilage, in addition to the ligament of Wrisberg, may have another parallel ligament running in front of the first. The anterior ligament bears the name of the ligament of Humphry.

The two eponyms appear in the English literature after 1858. In 1858, Humphry published an important text on the structure and function of bones and joints. The description of the ligaments is accurate, but the Wrisberg eponym is not mentioned. In 1895, Higgins proposed to attach the name of Humphry to the anterior part of the ligament, and since then the eponym, Humphry's ligament, has been in common use. Thus two eponyms became known: the ligament of Wrisberg and the ligament of Humphry. While Higgins was found to be responsible for the Humphry eponym, the source of the Wrisberg eponym remained a mystery, because it was definitely established that Wrisberg never described it, or even mentioned it.

The author's further investigation of early descriptions of the ligaments of the knee and other joints led to the German anatomist Josias Weitbrecht, who occupied the chair of physiology at St. Peterburg's Academy of Sciences. In 1742, when Wrisberg was three years old, Weitbrecht published one of the most significant treatises on ligaments. In this publication, he described, as far as is known for the first time, the ligaments connecting the posterior horn of the semilunar cartilage with the femur.

In the non-English literature, the ligament of Wrisberg is known as the ligament of Robert, because Robert gave the most precise description of the ligament and its function, in 1885. Previous to this date, the ligament was known in the non-English literature by its anatomical name—" lateral meniscofemoral ligament." As an exception in the non-English literature, Toldt, in his anatomical atlas, called the meniscofemoral ligament the " ligament of Wrisberg " and placed alongside this eponym, in brackets,

the name of Macalister, thus indicating that Macalister was apparently responsible for the creation of the eponym—Wrisberg's ligament.

An analysis of the *Journal of Anatomy and Physiology,* between 1867 and 1890, did not indicate when the eponym was created. In Macalister's textbook of *Human Anatomy* of 1889, Wrisberg's eponym is used as an established term.

The creation of the eponym can be traced with reasonable probability to Macalister. He apparently did not appreciate the phonic difference between the names of Weitbrecht and Wrisberg and thus attributed the ligament to Wrisberg instead of Weitbrecht. This is probably the reason why in the texts of the late nineteenth and the first decades of the twentieth century, the Wrisberg eponym does not appear in the non-English literature.

At the present time, the anatomic descriptive name of meniscofemoral ligament, as accepted by the *Nomina Anatomica Parisiensis,* is used universally, but the eponym of Wrisberg, although incorrect, is adopted in a number of English texts by force of tradition, and the double eponym of Wrisberg-Robert is appearing in a number of recent anatomical texts in the non-English and English literature and will probably remain for a long time.

Forsan et haec olim meminisse juvabit (Verg. Aen. I, 203).

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THE FIELDING H. GARRISON LIST OF MEDICAL AND SCIENTIFIC PERIODICALS OF THE 17TH AND 18TH CENTURIES; ADDENDA ET CORRIGENDA

DAVID A. KRONICK

When Garrison published his valuable checklist of 17th and 18th century medical and scientific periodicals in the pages of this journal (19), it represented a considerable expansion of the list he published in 1915 in Stedman's *Reference Handbook of the Medical Sciences*.[1] The first list contained a modest 102 items, while the final list which appeared some twenty years later, included 781 titles, or, including abridgements, translations and reprints, almost 1200 items. This fact illustrates that the method of compilation as Garrison himself describes it, " bit by bit, from all manner of available sources," is a lengthy one, but only those who have worked with the kind of publication with which Garrison concerns himself know that it is also a reflection of the elusive nature of many of these short-lived and obscure titles in the infancy of scientific periodical publication.

The list of additions and corrections to the Garrison list here appended, was compiled in the course of a study of the early history of the scientific periodical (29), and represents a belated answer to the request for such corrections and additions which Garrison made at the end of his essay. It is at the same time a small act of appreciation for the important pioneer work which Garrison did in this field, and which has provided such an important reference source for historians of medicine and science. The early periodicals of science and medicine represent in a sense the published conversations and laboratory notebooks of working scientists. Once their observations and ideas had been superseded, or incorporated into the body of verified scientific knowledge, the periodicals which represent the day to day development of their disciplines, become a part of the dusty archive which is rarely consulted. This characteristic, however, makes them of even greater importance to the historian, for in these old periodicals he can sometimes obtain his most intimate views of the contemporary scientist at work at his intellectual endeavours. Prutz (33), the historian

[1] 3d ed. 1915, *5*: 707-709.

of periodical journalism, uttered the following words in a different context, but they can also be applied to the early scientific periodical:

> When we bury ourselves in the yellowed volumes of old newspapers, it is like entering a ghost town, another Pompeii, in which, as if turning back the wheel of time, we suddenly surprise a people, long disappeared in the midst of their daily existence, in their most intimate daily tasks.

Nowhere, in the prefatory remarks to his list, does Garrison attempt to establish his criteria for selecting titles for inclusion. He was, perhaps, wise to avoid this onerous question, because it is often difficult in this early period in the history of the scientific periodical, to distinguish the periodical from other forms of publication. Even Kirchner (27), a compiler who covers roughly the same period, and who set up an elaborate series of criteria for his bibliography, found it difficult to apply them in the case of all the titles he cited. While he rejects some of the titles which Garrison cites, he includes several titles which other compilers would seriously question. This is almost inevitable from the very nature of the task. In the first place both Garrison and Kirchner found it necessary to obtain their information from other published bibliographies, rather than from an examination of the publication itself, for many of the titles they cite. Perhaps half of the titles in the Garrison list cannot be located in this country through the *Union List of Serials*, and those that can be located here are scattered over a wide geographic area.

Many of the titles, however, in the Garrison list do not qualify as scientific or medical periodicals no matter how broadly the term is defined, e. g. encyclopedias, collected case histories, or collected papers of an individual author. He has quite correctly included many non-scientific titles in the list, since with his usual insight, he recognized the importance of the 17th and 18th century literary and critical journal both in the dissemination of scientific information in that period, and in reflecting the scientific activities of the time. However, the titles included in this category represent only a small portion of the extant literary and critical periodicals published in this period. Titles of this genre omitted by Garrison have not been added here, because they are available from other published lists, Graham (21) for English periodicals, Kirchner (27) for German, and Dressler (4) for Italian, for example. Serial collections of dissertations and other similar texts have likewise been omitted, especially when they can be considered anthologies issued in parts, for under these terms of reference even some incunabula could be included. Discrepancies between Garrison's descriptions and citations found in other bibliographies and in discussions in the literature, are noted in the appended list,

but this does not necessarily mean that Garrison's description is less accurate or less complete than the one cited. The list of additions is arranged in accordance with Garrison's classification, and the "corrections" are keyed to the numbers which he uses in his list.

ADDENDA

II. SCIENTIFIC PERIODICALS AND TRANSACTIONS OF THE 17TH CENTURY

1. **1636-1655. Centurie des questions traitées ès conférences du bureau d'addresse.** v. 1-5. 4°. Paris, 1633-42 (1636-55). *Reprinted under the title:* Recueil général des questions traitées ès conférences du bureau d'addresse. 5v. 4°. Paris, 1699. S: 1357, 1500.[3]
2. **1689. Monatliche Erzehlungen** allerhand künstlicher und natürlicher Curiositäten. 3 nos. 8°. Leipzig, May-Aug., 1689. K: 31[4]
3. **1693. Memoirs for the Ingenious** Containing Curious Observations in Philosophy, Mathematicks, Physick, Philology and Other Useful Arts and Sciences. v. 1. London, 1693. UL[4]
4. **1694. Memoirs for the Ingenious,** or the Universal Mercury. 1 no. London, Jan., 1694. UL
5. **1697-1698. Observationes chymico-physico-medicae curiosae,** mensibus singulis continuandae. Hrsg. Georg Ernst Stahl. 8°. Francofurti et Lipsiae, Halle et Magdeburgicae, July, 1697-May 1698. K: 7, Guitard (25).

III. MEDICAL PERIODICALS AND TRANSACTIONS OF THE 18TH CENTURY

1721–1730

1. **Collectanea chirurgica.** v. 1-2. 8°. Hannoverae (1722: Hildesiae), 1721-1722 (1722-1723). K: 301
2. **Der aufrichtige Medikus.** Nr. 1-17. Nürnberg, 1726-1727. K: 345.
3. **Der poetische Medicus,** oder Sammlung auserlesener Medicin-und physikalischer Gedancken, Verse, Sprichwörter. St. 1-3. 8°. Berlin u. Leipzig, c1730. K: 252

1731–1740

4. **Miscellanea medico-chirurgica practica et forensia.** Hrsg. Gottlieb Budaeus. v. 1-7. Leipzig u. Görlitz, 1731-1737. K: 428
5. **Medizinische und chirurgische Berlinische wöchentliche Nachrichten.** Hrsg. Samuel Schaarschmidt. v. 1-6. 4°. Berlin, 1739-1748. v. 4-6 *as*: Medicinische und chirurgische Nachrichten. K: 391, UL

1741–1750

6. **Amoenitates medicae.** Hrsg. Henr. Frid. Delius. v. 1-5. 8°. Leipzig, 1745-1747. K: 729
7. **Beiträge zur medicinischen Gelehrsamkeit.** Hrsg. Chr. Fr. Daniel d.Ä. v. 1-3. 4°. Halle, 1749-1755. K: 666
8. **Nachrichten von jetzt lebenden Aerzten und Naturforschern** in und um Teutschland. Verf. Fr. Börner, Hrsg. E. Gottfr. Baldinger. v. 1-4. 8°. Wolfenbüttel, 1749-1773. K: 793

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[3] Renaudot's famous conferences. Hatin (26) says of this title: "This is evidently the origin of the transactions, the journals and memoirs of our learned societies," but the statement is perhaps a little too enthusiastic.

[4] Barnes (2) calls it the first specialized scientific journal in Germany.

[4] The May issue contained the first version of Leeuwenhoek's famous letter on the capillary circulation. See Dobell (12), p. 16.

1751–1760

9. **Merkwürdige Krankengeschichte** und nützliche Erfahrungen aus der Geneskunst und Wundarzney. Hrsg. Zacharias Vogel. v. 1. Rostock u. Wismar, 1756. K: 1091

10. **Medicinische Societät in Budissin.** Sammlungen. v. 1. 8°. Altenburg, 1757. AS: M 391

11. **Calendarium medicum** ad usum saluberrimae Facultatis parisiensis. 32°. Paris, 1757-1785. AS: C 27 [6]

12. **Annus medicus quo aistuntur observationes.** 8°. Vienna, 1759-1762. Guitard (25)

1761–1770

13. **Medicinische und physische Nachrichten.** v. 1. 8°. Dresden, 1762. UL, B: 2902, S: 2511

14. **Diaro universal de medicina, cirurgia, pharmacia.** Ed. Manoel Gomes de Lima. Lisbon, 1764-1772. Silva Carvalho (36)

15. **Der Patriotische Medicus.** Hrsg. Anton Heins. v. 1-2. 8°. Hamburg, 1765-1768. Reprint. 2v. Hamburg, 1768-1769. K: 1309

16. **Liefländische Abhandlungen von der Arzneywissenschaft.** Hrsg. Peter Ernst Wilde. St. 1-13. Schloss-Oberpahlen, 1766-1769. 2d ed. 1v. Schloss-Oberpahlen, 1782. K: 1478

17. **Neue Arzneyen wider die medizinischen Vorurtheile.** Hrsg. Ernst Gottfried Baldinger. v. 1-2. 8°. Langensalza, 1768-1769. K: 1368

18. **Adversaria medico-practica.** Hrsg. Christian Gottlieb Ludwig. v. 1-3. 8°. Leipzig, 1769-1772. K: 1394. 2d ed. 1770-1774. SG, I, 8, 379.

19. **Neue medicinische und chirurgische Anmerkungen.** Hrsg. Joh. Friedrich Henkel. St. 1-2. 8°. Berlin u. Stralsund, 1769-1772. K: 1185. *Continues*, Sammlung medicinischer und chirurgischer Anmerkungen. Berlin, 1747 ff. K: 571

20. **Auszüge aus den neuesten Dissertationen** über die Naturlehre, Arzneywissenschaft und alle Theile derselben. Hrsg. Ernst Gottfried Baldinger u. Joh. Carl Weber. v. 1. Berlin u. Stralsund, 1769-1772. K: 1186

21. **Etrennes de santé.** Paris, 1769 ff. Grand-Carteret: 418

1771–1780

22. **Der Churs ächsische Landphysikus.** Hrsg. Fr. Aug. Weiz. v. 1-3. 8°. Naumburg u. Leipzig, 1771-1773. K: 2054

23. **Medical Society of Students at Edinburg,** Addresses. 8°. Edinburg, 1771-1775. L: 14

24. **Medizinische Unterweisungen,** eine periodische Schrift. Hrsg. Friedrich Sam. Kretzschmar. 8°. Dessau, 1772. K: 1694

25. **Der Praktische Landarzt;** eine Wochenschrift. Hrsg. Peter Ernst Wilde. v. 1-2. 8°. Mitau, 1773-1774. K: 2036, UL

26. **Almanach de santé.** Ed. Gardane. 16°. Paris, 1774 ff. 1775 *as*: Étrennes d'un médecin. Guitard (25), Grand-Carteret: 503, AS: E 432. *See also* G: 200

27. **Mémoires littéraires,** critiques, philosophiques, biographiques et bibliographiques pour servir à l'histoire ancienne et moderne de la médecine. Ed. Goulin. 4°. Paris, 1775-1776. Guitard (25)

28. **Avvisi sopra la salute umana.** v. 1-10. Firenze, 1776-1785. NLM

29. **Der Hessische Arzt.** St. 1-6. Leipzig, 1776. K: 1959

30. **Séance publique tenue par la Faculté de médecine** en l'Université de Paris. 4°. Paris, 1778-1779. *Continued after* 1799. AS: S 263

31. **Gazette de médecine pour les colonies.** 4°. Le Cap-Haitien, 1778. AS: G 90

32. **Bemühungen fürs Wohl seiner Nebenmenschen** aus der Arzneikunde. Hrsg. Markus Philipp Ruhland. v. 1-2. 8°. Leipzig, 1779-1780. K: 1983

1781–1790

33. **Neues Taschenbuch fur Aerzte und Nichtaerzte.** Jena, c1781. UL *Superseded by* G: 52

[6] Cited also by Guitard (25) and Grand-Carteret (22).

34. **Medizinisches Wochenblatt.** Wein, 1781. K: 3318
35. **Observations faites dans le département des Hôpitaux-civils.** 1785. NML[6]
36. **Observations on the Specimen Alterum Pharmacopoeiae Londinensis.** 8°. London, 1787-1788. 1788 *as*: Observations on the Pharmacopeiae Collegi Regalis Medicorum Londinensis. AS: O 78
37. **Hamburgisches Gesundheits-Blatt.** v. 1-2. Hamburg, 1788-1791. K: 2735
38. **Rockenmedicin;** eine Wochenschrift. Hrsg. Joh. Sam. Traug. Frenzel. 8°. Wittenburg, 1788. K: 3442
39. **Lesebibliothek für die Liebhaber der Apotheker-und Wundarzney-Kunst.** Hrsg. Joh. Jak. Kohlhaas. v. 1-2. 8°. Regensburg, 1788-1789. K: 3171
40. **Reflexionen und Erfahrungen für Bürger, Geistliche und junge Aerzte.** St. 1. 8°. Düsseldorf, 1790. K: 2502

IV. PERSONAL HYGIENE, POPULAR MEDICINE

41. **Nutzliche und erbauliche Haus-Kunst und Lust-Schul.** St. 1-12. 8°. Basel, 1733-1734. Lange: 67
42. **Almanach de médecine.** 32°. Paris, 1763. Grand-Carteret: 352
43. **Etrennes salutaires** ou précis de ce qu'il est à propos d'éviter et faire pour conserver en bonne santé et prolonger sa vie. 24°. La Haye, 1764 ff. Grand-Carteret: 372
44. **Der Eklektiker,** ein medizinisches Wochenblatt für unmedizinische Familienväter. v. 1. 8°. Hamburg, 1771. K: 1843
45. **Arzneyen wider physikalische, ökonomische und diätetische Vorurtheils.** Hrsg. Friedrich August Weber. v. 1-2. Heilbronn, 1774-1776. K: 1894
46. **Diätetisches Wochenblatt** für alle Stände. Hrsg. Peter Ben. Christian Graumann. v. 1-3. 8°. Rostock, 1781-1783. K: 3184, UL
47. **Frauenzimmer Almanach** zum Nutzen und Vergnügen. 12°. Leipzig, 1789. 24 C 80

V. PHARMACY

48. **Calendrier a l'usage des membres du College de Pharmacie** et de leurs éleves. 32°. Paris, 1782-1787. From 1802 *as*: Annuaire. AC: C 29[7]
49. **Portefeuille für Gegenstände der Chemie und Pharmacie.** St. 1. 8°. Hamburg, 1784. K: 2708, B: 3714, S: 2767

IX. ANTHROPOLOGY AND PSYCHOLOGY

50. **Beiträge zur Beförderung der Menschenkenntniss** besonders in Rücksicht unserer Moralischen Natur. Berlin, 1788-1789. *Continues as*: Neue Beiträge zur Bereicherung der Menschenkunde. Berlin, 1789. Amdur (1)

XI. REPOSITORIES OF MEDICAL EXCERPTS, REPRINTS, REVIEWS AND TRANSLATIONS

51. **Exercitationes praxeos casualis clinico-medicae.** Hrsg. Christoph Konr. Sickel. v. 1-8. 8°. Frankfurt u. Leipzig, 1744-1748. K: 76A
52. **Gründliche Auszüge aus den neuesten juristischen, medizinischen,** historischen, physikalischen und mathematischen Disputationibus. v. 1. 4°. Leipzig, 1736-1737. *Continued as*: Gründliche Auszüge aus medicinischen, physicalischen und mathematischen Disputationen. v. 1-4. 4°. Leipzig, 1737-1741. K: 496, 498
53. **Gründliche Auszüge aus den neuesten medicinischen und chirurgischen Disputationibus,** welche auf den Hohenschulen gehalten worden. St. 1-3. 8°. Stuttgart, 1749-1752. K: 787
54. **Sammlung medicinischer und chirurgischer Anmerckungen.** Hrsg. Joh. Friedrich Henkel. v. 1-8. 4°. Berlin, 1747-1763. *Continued as*: Neue medizinische and chirurgische Anmerckungen. Berlin, 1769 ff. K: 571, 1185

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[6] The National Library of Medicine copy has no title page. It appears to have been published in 12 numbers, and contains histories and descriptions of various French hospitals, along with some case reports.

[7] Guitard (25) cites another issue in 1780.

XII. SERIAL COLLECTIONS OF DISSERTATIONS, CASES AND OBSERVATIONS

55. **Gallerie der berühmsten Wundärzte Frankreichs.** Leipzig, 1787. Schlegel's Neue medicinische Litteratur, 1788, 1; St. 3: 8-15

XIII. SCIENTIFIC TRANSACTIONS OF THE 18TH CENTURY

56. **Académie des sciences et arts de Metz.** Seánce publique. 4°. Metz, 1773. AS: S 97
57. **Académie delphinale, Grenoble.** Mémoires. v. 1-3. Grenoble, Lyons, 1787-1789. UL, Deniker: 352
58. **Académie des belles-lettres, sciences et arts, La Rochelle.** Recueil des pièces en prose et en vers. v. 1-3. 8°. Paris, La Rochelle, 1747-1763. S: 1634c, Deniker: 125
59. **Accademia etrusca dell'antichissima città di Cortona.** Saggi di dissertazioni accademiche. v. 1-9. 4°. Cortona, 1755-1791. UL, S: 1816, AS: S 4
60. **Academia regia scientiarum Borussica.** Dissertationum occasione premii ab Academia regia scientiarum Borussica quotanis editarum . . . v. 1-4. 4°. Berlin, 1742-1760. AS: D 228
61. **Cercle de Philadelphes.** Mémoires. v. 1. Port au Prince, 1788. UL, S: 3920
62. **Pèsz islenska laerdoma.** Rit. v. 1-2. 8°. Copenhagen, 1780-1782. S: 643
63. **Physisch-chemische Warschauer Gesellschaft.** Vermischte Abhandlungen. St. 1. 8°. Warschaw, Dresden, 1768. K: 1501, S: 3757

XV. BOTANY

64. **Beiträge zur Botanik.** Hrsg. Albr. Wilhelm Roth. v. 1-2. 8°. Bremen, 1782-1783. *Continued as*: Neue Beiträge zur Botanik (1802). K: 2423, B: 806, S: 2428
65. **Botanical Review.** Ed. by E. O. Donovan. v. 1. 8°. London, 1790. UL, B: 1028
66. **Flora oder Nachrichten von merkwürdigen Blumen.** Hefte 1-6. 8°. Stuttgart, 1788-1790. K: 3256, B: 1707 (1788-1791):
67. **Gartenkalender.** Hrsg. C. Cay Lor. Hirschfeld. v. 1-7. 8°. Kiel, Dessau u. Braunschweig, 1782-1789. v. 1 *as*: Taschenbuch für Gartenfreunde. *Continued as*: Kleine Gartenbibliothek (1790). K: 2798, 2799, 2802, B: 1821
68. **Journal für die Gartenkunst.** Hrsg. J. A. Klüpfel. St. 1-24. 8°. Stuttgart, 1783-1794. St. 9 ff.: Journal für die Gärtnerey. UL, K: 3254, B: 2492
69. **Nachrichten aus dem Blumenreiche.** Hrsg. Ludwig Christoph Schmahling. St. 1-6. 8°. Dessau u. Leipzig, 1784-1789. K: 2483

XVII. ENTOMOLOGY

70. **Beiträge zur Insektengeschichte.** Hrsg. A. W. Knoch. v. 1-3. 8°. Leipzig, 1781-1783. *Continued as*: Neue Beiträge zur Insektenkunde. UL, K: 2232
71. **Beiträge zur Natur-und Insektenlehre.** Hrsg. Christian Friedr. Karl Kleeman. v. 1. 4°. Nürnberg, 1761. K: 1436
72. **Monatliche herausgegebene Insektenbelustigungen.** Hrsg. August Joh. Rosel von Rosenhof and Christian Friedr. Karl Kleemann. v. 1-4. 4°. Nürnberg, 1746-1761. B: 3100, K: 75A [a]

XVIII. SCIENTIFIC PERIODICALS

73. **Abhandlungen über Gegenstände der Natur und Kunst.** Hrsg. Christian Ludolf Reinhold. v. 1. 8°. Osnabruck, 1777. *Volume title*: Minerva. K: 2088
74. **Adversaria argumenti physico-medici.** Fasc. 1-6. 4°. Erlangae, 1779-1790. 23 C 970
75. **Algemeene Konst- en Letterbode.** v. 1-120. 4° and 8°. Haarlem, 1788-1861. General index, v. 1-25, 1788-1800. Haarlem, 1803. UL, B: 81

[a] Dobell cites an edition in 1792 in 5v.

76. **Algemeene Oefenschoole van Kunsten en Wetenschappen.** Th. 1-30. 8°. Amsterdam, 1763-1783. 25 C 346.

77. **Allgemeines Magazin der Natur, Kunst und Wissenschaften.** Hrsg. J. Dan. Titius and others. v. 1-12. 8°. Leipzig, 1753-1767. UL, K: 1040, B: 131

78. **American Museum.** Ed. by Matthew Cary. v. 1-13. 8°. Philadelphia, 1787-1798. UL, B: 234

79. **Annali di chimica,** di L. Brugnatelli. v. 1-21. 8°. Pavia, 1790-1802. UL, B: 403

80. **Archiv der Schwaermerei und Aufklaerung.** v. 1-3, and v. 4, St. 1-2. 8°. Altona, 1787-1791.[9] 23 C 1178a

81. **Aus dem Reiche der Wissenschaften** wohlversuchte Referendarius. Hrsg. Johann Andreas Erdmann Maschenbauer. v. 1-6. 4°. Augsburg, 1750-1769. K: 82A, B: 736

82. **Auswahl aller eigenthümlicher Abhandlungen und Beobachtungen in der Chemie.** Hrsg. Crell. v. 1-5. 8°. Leipzig, 1786-1787. v. 4 *also as*: Neuesten Entdeckungen in der Chemie. UL, B: 756, *see also* G: 705

83. **Auswahl der neuesten Abhandlungen und Beobachtungen** auswärtiger Gelehrten über Gegenstände der Physik, Chemie und Mineralogie. Hrsg. Wolff. v. 1-2. 8°. Quedlinburg, 1790. B: 759, S: 3187

84. **Beiträge zum Wachsthum der Natur-und Grössenlehren.** Hrsg. Gottfried Heinrich Grummert. St. 1-2. 4°. Dresden u. Leipzig, 1747. K: 603

85. **Beiträge zur Beförderung der Naturkunde.** Hrsg. Friedr. Wilh. v. Leysser. v. 1 (St. 1-25). 8°. Halle, 1774. K: 1830, B: 913, S: 2707

86. **Beiträge zur Naturgeschichte des Maynzer Landes.** Hrsg. Bernh. Seb. v. Nau. Heft 1-2. 8°. Mainz, 1785-1786. K: 2983

87. **Beiträge zur Naturgeschichte,** sonderlich des Mineralreichs. Hrsg. Joh. Sam. Schroeter. v. 1-2. 8°. Altenburg, 1774-1776. UL, K: 1555

88. **Beiträge zur Naturgeschichte und Bergpolizeywissenschaft.** Hrsg. Glaser. v. 1. 8°. Leipzig, 1780. B: 831, S: 2901

89. **Beiträge zur Naturkunde des Herzogthums Zelle.** Hrsg. Johann Taube. v. 1. 8°. Zelle, 1766. K: 1215

90. **Beiträge zur Physik, Oekonomie, Mineralogie, Technologie und Statistik,** besonders der russischen und angränzenden Länder. Hrsg. Benedict Franz Joh. Hermann. v. 1-3. 8°. Berlin u. Stettin, 1786-1789. K: 2357, B: 917, 5522, S: 2299

91. **Bibliotheca physico-medica.** v. 1-2. 8°. Breslau, 1776-1777. K: 1657

92. **Bibliothèque du Nord.** v. 1-13. Paris, 1778-1780. UL

93. **Censeur universel;** revue générale de toutes les publications anglaises sur les sciences. 4° and 8°. Paris, 1785-1787. AS: C 130

94. **Chemische en phijsische Oefeningen voor de Beminnaars der Schei-en Natuurkunde.** Door P. J. Kastelyn. v. 1-3. 8°. Amsterdam and Leyden, 1788. *Continued as*: Nieuwe . . . oefeningen (1797). B: 1256, S: 728

95. **Christianias physicaliske aarbog.** v. 1-3. 8°. Christiana, 1783-1785. *Continued as*: 142. B: 1282, S: 597

96. **Chymische Nebenstunden.** Hrsg. Joh. Georg Model. St. 1-2. St. Petersburg, 1762-1768. K: 1454

97. **Compendieuse-physikalische Bibliothek.** Hrsg. Julius Bernh. v. Rohr. v. 1. 8°. Leipzig, 1724. K: 319

98. **Cosmogonia,** oder neueste und älteste Naturgeschichte. Hrsg. Christian Gottlieb Konig. No. 1-2. 8°. Amsterdam, 1763. K: 1160

99. **Curieuser und gemüthsergetzender Mercurius.** v. 1-8. Hrsg. Philotechnius. Erfurt, 1717-1718. K: 137

100. **Diario filosófico, médico, cirurgico.** Por D. Juan Galisteo. v. 1. 4°. Madrid, 1757. B: 1473, S: 1744

101. **Discurs curiöser Sachen** insonderheit hermetischer, philosophischer, physikalischer, medicinischer und anderer Wissenschaften. Hrsg. Joh. Gottfr. Meerheim. No. 1-4. Leipzig, 1708. K: 108

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[9] Usteri cites it as: **Archiv der Schwärmerey und des Aberglaubens.** Repertorium der medicinischen Litteratur, 1790, p. 361.

102. **Dresdnisches Magazin** oder Ausarbeitungen und Nachrichten zum Behufe der Naturlehre, der Arzneykunst, der Sitten und der schönen Wissenschaften. v. 1-2. 8°. Dresden, 1760-1765. K: 898, B: 1486, UL

103. **Esprit des Journalistes de Trévoux.** v. 1-4. 12°. Paris, 1771 (1701-1762). B: 1634, S: 1383, UL [10]

104. **Etrennes du printems,** aux habitans de la campagne et aux herboristes, ou pharmacien champètre. Par M. P. Buch'oz. v. 1. 18°. Paris, 1782. Grand-Carteret: 707

105. **Fortgesetzte Beiträge zur Naturkunde.** Hrsg. Joh. Daniel Denso. St. 7-12. 8°. Berlin, 1765. *Continues*: **126.** *Continued as*: **132.** K: 1178, B: 3646b

106. **Früchte der Einsamkeit** in unterschiedlichen physikalischen, medizinischen und chirurgischen Zeitverkürzungen. Hrsg. Chr. Ehrenfried Rückert. St. 1-6. 8°. Breslau, 1775-1776. K: 1654.

107. **Gelehrte Nachrichten aus Welschland** die Künste und Wissenschaften vorzügl die Physik und Naturhistorie betreffend. Hrsg. Jac. Sam. Wyttenbach. 1 no 8°. Basel, 1783. K: 2298, Lang: 46

108. **Gelehrte Nachrichten über die Arbeiten deutscher Gelehrter zur Oekonomie, Physik und Medicine.** St. 1-6. 4°. Wien, 1786-1787. K: 3396

109. **Gemeinnützige Abhandlungen zur Beförderung der Erkenntniss und des Gebrauches natürlicher Dinge** in Absicht auf die Wohlfahrt des Staates und des menschlichen Geschlechts überhaupt. Hrsg. Titius. v. 1. 8°. Leipzig, 1768. B: 1862, S: 2932

110. **Gemeinnützige Nachrichten aus dem Reiche der Wissenschaften und Künste.** Hrsg. Peter Feddersen. St. 1-52. 4°. Hamburg, 1768-1769. *Continuation of*: Freye Nachrichten. 1765 ff. K: 1310, 1327, S: 2747, B: 1863

111. **Gesellschaftliche Erzählungen** für die Liebhaber der Naturlehre, Haushaltungs-Wissenschaft, Arzney-Kunst und Sitten. Hrsg. Joh. Aug. Unzer. v. 1-4. 8°. Hamburg, 1753-1754. *Continued as*: **131.** K: 988, S: 2749, B: 1905

112. **Giornale scientifico,** letterario e delle arti di una società filosofica di Torino. Raccolto e posto dai Giovanni Ant. Giobert e Carlo Giulo. v. 1-6. 8°. Torino, 1789-1790. UL, B: 1943, S: 2067

113. **Hermetische Briefe** wider Vorurteile und Betrügereyen. Hrsg. Joh. Sal. Semler v. 1. 8°. Leipzig, 1788. K: 2922

114. **Italienische Bibliothek** oder Sammlung for merkwürdigsten kleinen Abhandlungen zur Naturgeschichte. Hrsg. J. J. Volkmann. v. 1-2. 8°. Leipzig, 1778-1779. K: 1970, B: 2234, S: 2938

115. **Journal anglais** contenant des descouvertes faites dans les sciences, les arts libéraux et mécaniques, dans les trois royaumes. v. 1-7. 8°. Paris, 1775-1778. UL, AS: J 301

116. **Journal d'histoire naturelle.** Par Lamarck. v. 1-2. Paris, 1792. UL, *See also* G: 538

117. **Journal de littérature, des sciences et des arts.** Par l'Abbé Grosier. v. 1-4? 12°. Paris, 1779-1782. *Continuation of*: G: 684 B: 2924b, S: 1412

118. **Journal des sciences et des arts.** v. 1-6. 8°. Paris, 1784-1787. B: 2451, S: 1426

119. **Journal des sciences utiles** par une société de gens de lettres. Par M. l'Abbé Bertholon. v. 1? 12°. Paris, 1790-1791. AS: J 633bis

120. **Kleine physikalisch-chemische Abhandlungen.** Hrsg. Joh. F. Westrumb. v. 1-8. 8°. Leipzig, 1785-1797. B: 2566

121. **Kurelle chemische Versuche und Erfahrungen.** St. 1. Berlin, 1756. K: 856

122. **Magazin für Naturgeschichte, Physik und Chemie.** v. 1-10. 8°. Moscow, 1788-1792. Rauchfuss.

123. **Memoirs for the Curious.** v. 1, no. 1-2. London, 1701. UL, B: 1334, S: 255 [11]

124. **Memorial literario,** instructivo y curioso de la corte de Madrid. v. 1-21. 8°. Madrid, 1784-1790. S: 1750a, UL: 1784-1808, v. 1-53.

125. **Monath-Schrift von nützlichen und neuen Erfahrungen** aus dem Reiche der

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[10] Abridgement of: Mémoires pour servir à l'histoire des sciences. *See* G: **684.**

[11] B. also cites: A Compleat volume of the Memoirs of the Curious from January, 1707 to December, 1708. v. 1. 4°. London, n. d.

Scheide-Kunst. Hrsg. Jakob Andreas Weber. St. 1-2. 8°. Tübingen, 1773-1774. K: 2161, B: 7105

126. **Monatliche Beiträge zur Naturkunde.** Hrsg. Joh. Dan. Denso. St. 1-6. 8°. Berlin, 1753. *Continued as*: **105.** K: 840, B: 3645a, S: 2352, UL

127. **The Naturalists' Journal.** Edited by D. Barrington. v. 1. 4°. London, 1767. Reprint, London, 1775. B: 3252, S: 388

128. **La Nature considérée sous ses différents aspects,** ou lettres sur les animaux, les végétaux et les minéraux. Par Buch'hoz. v. 1-47. 12°. & par l'Abbé Bertholen et Boyer. v. 1-9. 8°. Paris, 1771-1789. S: 1466, B: 2691 [18]

129. **Natuurkundige Verhandlingen of Verzameling van Stukken der Natuurkunde,** Geneeskunde en natuurlyke Historie betreffende. v. 1? 8°. Amsterdam, 1767. B: 3284, S: 759, UL. *See also*: G: 697

130. **Neue Alchymistische Bibliothek.** Hrsg. Friedr. Jos. Wilh. Schröder. v. 1-2. 8°. Frankfurt, 1770-1774. *Continued as*: **133.** K: 1265

131. **Neue Gesellschaftliche Erzählungen** für die Liebhaber der Naturlehre, der Haushaltungs-Wissenschaften, der Arzney-Kunst und der Sitten. Hrsg. J. D. Titius. v. 1-4. 8°. Leipzig, 1758. *Continuation of*: **111.** K: 1053, B: 1905a, S: 2749

132. **Neue Monatliche Beiträge zur Naturkunde.** Hrsg. Joh. Daniel Denso. St. 1-5. 8°. Schwerin, 1770. K: 1483, S: 3217

133. **Neue Sammlung der Bibliothek** für die höheren Naturwissenschaften und Chemie. Hrsg. Friedr. Jos. Wilhelm Schröder. v. 1-2. 8°. Marburg u. Cassel, 1775-1776. 2d ed. Leipzig, 1779. *Continuation of*: **130.** *Continued* under same title, Leipzig, 1780. K: 2031

134. **Neue Sammlung kleiner Abhandlungen** einiger Gelehrten in Schweden über Naturgeschichte. v. 1. 8°. Copenhagen, 1774. B: 4184, S: 636

135. **Neue Sammlung verschiedener Schriften** der grössten Gelehrten in Schweden für die Liebhaber der Naturgeschichte. v. 1. 8°. Copenhagen, 1775. B: 4192, S: 637

136. **Neues Schwedisches Magazin** kleiner Abhandlungen, welche in die Natur-und Haushaltungskunde einschlagen. Hrsg. Joh. Christian Dan. Schreber. v. 1. 8°. Nürnberg, 1783. *Continuation of*: **161.** K: 3057, S: 3169, B: 4232a

137. **Nützlicher Zeitvertreib** für Oesterreichs Bürger, ein sehr nützliches und unterhaldtendes Lesebuch für Jedermann, enthält Erzählungen und Geschichten die Moral, die Arzneykunde und die Naturgeschichte zergliedert. v. 1-6. 8°. Wien, 1786-1788. K: 3402

138. **Oberdeutsche Beiträge zur Naturlehre und Oekonomie.** Hrsg. Karl Erenbert v. Moll. v. 1. 8°. Salzburg, 1787. K: 3196, S: 3530, B: 3387

139. **Observaciones sobre la fisica, historia natural y artes utiles.** No. 1-14. Mexico, 1788. UL

140. **Opuscoli scelti sulle scienze et sulle arti.** v. 1-23. 4°. Milano, 1778-1803. *Continuation of*: **158.** *Continued as*: Nuova scelta d'opuscoli interessanti. v. 1-2. Milano, 1804-1807. UL, B: 4211, S: 1903

141. **Osservazioni spettanti alla fisica,** alla storia naturale ed alle arti. Venezia, 1776-? S: 2098

142. **Den Physicalske Aarbog.** Af Chr. Ernst Wildberg Schulze. v. 1-4. 8°. Copenhagen, 1786-1793. *Continuation of*: **95.** B: 1282a, S: 644

143. **Physikalische Arbeiten der einträchtigen Freunde in Wien.** Hrsg. Ignaz Edler v. Born. v. 1-2. 4°. Wien, 1783-1788. UL, K: 3335, S: 3631, B: 3644

144. **Physikalische Belustigungen.** Hrsg. Christian Mylius u. A. G. Kästner. v. 1-3. 8°. Berlin, 1751-1757. UL, K: 838, B: 3638, S: 2363

145. **Physikalische Bibliothek.** Hrsg. Joh. Dan. Denso. v. 1-2. 8°. Rostock u. Wismar, 1754-1756. K: 1086, B: v. 1-8. 1754-61, 3645, S: 3204, v.1-2, 1754-61.

146. **Physikalische Bibliothek.** Hrsg. Joh. Christian Polykarp Erxleben. v. 1-4. 8°. Göttingen, 1775-1779. K: 1792

147. **Physikalische Briefe.** Hrsg. Joh. Dan. Denso. St. 1-12. Stettin, 1750-1751. *Continued by*: **105, 126, 132.** K: 783, B: 3646, S: 3227

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[18] B. says this title is the result of a merger of 3 other titles issued by Buc'hoz between 1768 and 1770. *See* B: 2691.

148. **Physikalische Brieftasche.** Wien, c1781. K: 3308

149. **Physikalischer Almanach.** v. 1-2. 12°. Wien, 1786-1787. B: 3651, S: 3630

150. **Physikalisches Taschenbuch** für Freunde der Naturlehre und Künstler. Hrsg. Joh. Georg Tralles. v. 1. 8° Göttingen, 1786. K: 2600, B: 3641, S: 2692

151. **Raccolta d'opuscoli scientifici** e letterarj degli autori Italiani. v. 1-25. 4°. Ferrara, 1779-1796. B: 3840, S: 1819, 23 C 439a

152. **Recherches de mathématiques et de physique.** Par M. Parent. Paris, March, 1703 ff. Reprint. v. 1-3. 1713. Camusat (6), Barnes (2)

153. **Recueil de tous mémoires de médecine,** botanique, physique, histoire naturelle . . . ?v. 8°. Anvers, 1770 ff. AS: R 221

154. **Samling af Hushalls-och andra Ron,** som tid efter annan i Tidningarna blifvit uppgifne. St. 1-2. 8°. Stockholm, 1789. 25 C 601

155. **Sammlung einiger Abhandlungen aus der Oekonomie,** Kameralwissenschaft, Arzneikunde und Scheidekunst. 8°. Hrsg. Chr. F. Reuss. Leipzig, 1777. K: 1969

156. **Sammlungen aus der Naturgeschichte,** Oekonomie-, Polizey-, Kameral- und Finanzwissenschaft. Hrsg. Börner. v. 1. 8°. Dresden, 1774. B: 4198, S: 2526

157. **Sammlungen nützlicher und angenehmer Gegenstände** aus allen Theilen der Natur-Geschichte, Arzneywissenschaft und Haushaltungskunst. Hrsg. Franz Xaver August Wasserberg. v. 1. Wien, 1773. K: 2192, B: 4188, Leipzig.

158. **Scelta d'opuscoli interessanti.** Redatti da C. Arnozett, Fortis, Fromond, Campi, Scave. v. 1-3. 12°. Milano, 1775-1777. *Continued as*: 140. 2d ed. v. 1-3. 1781-84. B: 4211, S: 1912, v. 1-66, 1776-77, UL, v. 1-36, 1775-77.

159. **Schau-Platz vieler ungereimter Meynungen und Erzehlungen.** Hrsg. Tharsander, i. e. G. W. Wegner. v. 1-3. 8°. Berlin u. Leipzig, 1735-1742. K: 387

160. **Schwaben zur Arzney-Gelahrtheit und Naturkunde.** v. 1-? Nordlingen, 1769-? Göttingsche gelehrte Anzeigen, 1770: 247-8.[13]

161. **Schwedisches Magazin** oder gesammelte Schriften der grösten Gelehrten in Schweden, für die Liebhaber der Arzneywissenschaft, der Naturgeschichte, Chemie und Oekonomie. Hrsg. Joh. Carl Weber. v. 1-2. 8°. Copenhagen, 1768-1770. *Continued as*: **136.** K: 1364, B: 4232, S: 650

XX. MISCELLANEOUS

[*Facetious and Fantastic Items*]

162. **Almanacum perpetuum für Aerzte und Nichtaerzte.** Jena, 1787. Schlegel's Neue medicinische Litteratur, 1787, 1: 138.[14]

CORRIGENDA

I: 1 The date of publication is 1862 and not 1682. It was apparently in ms. until published by Durand, and is a journal only in the generic sense of a daily record and is not a periodical publication.

I: 2 The **Collegium privatum Amstelodami** published a second volume, also in Amsterdam, in 1673. Contains the writings of Blaes and Swammerdam and some of the pioneer work in comparative anatomy. *See* Cole (9) p. 330, who located copies at the Bodleian, BM and the University of Glasgow.

I: 3 Bartholin's Acta medica et philosophica (1671-1679) cannot be connected, except geographically, with the **Societas medica Havniensis** which was not founded until 1772, after an interval of almost a hundred years.
——— Acta medica Hafniensia. v. 1. Copenhagen, 1775. UL

I: 4b J. L. M. C. translated also the second and third volumes. Volume 4 of the translation is dated 1683, but covers only up to April, 1682; the entry therefore, should read: v. 1-4, 1680-1683. NML

I: 5 Blankaart's journal appeared in 4v. 1680-1688. The translation in 3v. covered only the first 3v. 1680-1682. UL

[13] The review says that the first volume contains only some medical case histories of J. Aug. Philipp Gessner.
[14] A satire on Gruner's Journal. *See* G: III: 52.

I:6 Chereau (7) notes also an issue in April–Oct., 1687.

I:7 The note should read: *Title of* 4 (v. 4). The **Mercure sçavant** was published in Amsterdam in 1684 after Blegny's license was revoked. Most of the writers say that "Gauthier, médecin de Niort" under whose name it appeared was a pseudonym adopted by Blegny [e. g. Chereau (7)]. It was of quite a different character than the previous volumes, containing verse, music and short medical pieces.

II:1 Ornstein (32) p. 75, cites another publication of the Accademia, Gesta Lynceorum, 1609, and gives the date of foundation as 1601. She calls this publication ". . . by far the earliest recorded publication of scientific endeavours by a society."

II:4 **Royal Society of London,** Philosophical Transactions.

ANOTHER ABRIDGMENT

——— Philosophical transactions and collections to the end of the year 1720, by John Lowthorp and Henry Jones. v. 1-5. London, 1732. UL

OTHER TRANSLATIONS

——— Acta Philosophica Societatis Regiae in Anglia anni 1665, 66, 67, 68, 69, auctore Henrico Oldenburgii, in Latinum versa a Joannne Sterpino. 8°. Francofurti, 1671. Barnes (2)

——— Natuurkundige Aanmerkingen, Waarneemingen en Ondervindigen. v. 1-2. 8°. Amsterdam, 1735. S:767

——— Neue Anmerkungen über alle Theile der Natur-Lehre. v. 1-2. Copenhagen u. Leipzig, 1753-1754. K:1016, S:635, v. 1-3, 1753-1756.

——— Saggio delle transazioni filosofiche. 4°. Napoli, 1729-1734. S:1960, Barnes (2) p. 153.

II:5 **Accademia del cimento, Florence.**

——— Fasti consolari, saggi 1691. v. 1. 4°. Firenze, 1717. S:1821b

——— Saggi di naturali esperienze. 2d ed. f°. Firenze, 1691. Zeitlin and Ver Brugge catalog, 1957:176.

II:6 **Giornale dei Letterati,** published in Parma from 1668-1688 (UL) is probably just as significant a journal from the point of view of medical and scientific history. The **Giornale de' Letterati,** edited by Nazari and Ciampini was in the beginning a translation of the **Journal des Scavans.** From 1675 to 1679 Ciampini published a competitive journal under the same title in Rome. *See* Dressler (14) p. 95 ff. These titles represent a host of similar titles published in Italy in this period, among the most important perhaps is the **Galleria di Minerva,** which was also the name of a society founded in Venice in 1698 by Hieronymus Albrizzi, with a membership of 600. Dressler (14) p. 98 ff.

II:7i This title is attributed by Neuberger (31) to a "Verein Breslauer Aerzte" founded by Christian Helwich. It covers epidemics which occurred in the years 1699, 1700 and 1702, and was published 1706-1710.

II:9 This is the same as II:4b, which is not an abridgement of the Philosophical Transactions, but the issues edited by Robert Hooke after Oldenbourg's death.

II:11 This is apparently a reprint of the journal published in Amsterdam. The original cited both under this title and as: **Mémoires concernant les arts et les sciences** presentez à Mgr. le Dauphin, Bruxelles, 1672, (probably also a reprint) is part of a journal published by J. B. Denis in Paris. The volume in the collection of the National Library of Medicine consists of 12 nos. with the issue title: **Mémoires concernant les arts et les sciences,** running from Feb. 1, 1672 to June 11, 1672. The Mémoires are followed by eleven nos. with the running title: Conférences sur les sciences, and dated July 1, 1672 to April, 1673. The title page of the volume, however, reads: **Recueil des mémoires et conférences,** and bears the imprint date 1672, so apparently the volume was bound with four extraneous issues. It does not contain the three additional conferences numbered 12 to 14, said to have been issued between May 1673 and Feb. 1674, or the fifteenth conference which appeared in 1683. *See* Barnes (2) p. 183 ff., Brown (4) p. 205-6.

II: 12b The Opuscula . . . are a condensed version of the first two series of the **Acta Eruditorum** covering the years 1684-1740, but published 1740-1746. B: 30, S: 2084

II: 13 Barnes (2) p. 22 says this title was published monthly from March, 1686 to Feb., 1687 and that it was edited by Francesco Lana.

II: 17 **Académie des sciences, Paris.**
——— Suite des mémoires. v. 1-7. 4°. Paris, 1720-1764 (1718-1764). NML

REPRINTS

——— Histoire. v. 1-48. 12°. Amsterdam, 1699-1746 (1706-1755). S: 719a, NML
——— Mémoires de mathématiques et de physique. v. 1. 12°. Amsterdam, 1693 (1723). S: 719c
——— Mémoires contenant les ouvrages adoptés par cette académie avant son renouvellement en 1699. v. 1-6. 4°. s'Gravenhage, 1731. Another edition. Amsterdam, 1735-1736. S: 814

TRANSLATIONS

——— Medical essays and observations, abridged from the Memoirs of the Royal Academy, by Thomas Southwell. v. 1-4. 8°. London, 1764. L: 10
——— Philosophical history and memoirs, by Martyn. v. 1-5. 8°. London, 1742. S: 171a, UL
——— Schriften. Tr. by Gottschedin. v. 1-2. 8°. Liegnitz, 1755. S: 3056
——— Memorie appartenenti alla storia naturale. v. 1-10. Venezia, c1750. LC

II: 17a Bertrand (3) cites a translation by Fontenelle, however this is probably the first two volumes of the edition of the Histoire et mémoires covering the period 1666-1699, which also incorporated the Society's Mémoires pour servir a l'histoire des animaux [*See* Cole (9) p. 351]. It is also probable that separate volumes of the Society's proceedings were published in 1692 and 1694 [*See Kronick* (29) p. 158 ff.]. The Histoire et mémoires covering the years 1699 which were the publication of the more or less current proceedings of the Society should not be confused with the retrospective review of the years 1666-1699 published under the same title. There are several other French editions of both titles noted, in addition to the foreign editions.

II: 17i First volume published in 1750. S: 1276g, NML

II: 17 S: 2438, 1692-1737. *See also* G: 487i.

III: 1 K: 95, 10 issues.

III: 6 K: 342, 63 issues.

III: 7 The **Society Instituted at Edinburgh for the Improvement of Medical Knowledge,** founded in 1737, was the predecessor of the **Royal Medical Society of Edinburgh** (charter in 1778) and had no formal connection with the **Society for the Improvement of Medical Knowledge** founded in 1731 which became the Philosophical Society in 1739 and received its Royal Charter in 1783 as the Royal Society of Edinburgh. The former society apparently published no papers at all in the 18th century. *See* Gray (23).

III: 9 **Académie royale de chirurgie, Paris.**
——— Séance publique de l'Académie de chirurgie. 4°. Paris, 1756-1785. AS: S 250[10]
——— Verhandelingen van de Koninglijke Akademie der Heilkonst. 8°. s'Gravenhage, 1745. AS: V 33
——— Memoirs of the Royal Academy of Surgery at Paris. Tr. by George Neale. v. 1-2. 12°. London, 1750, 1759. L: 5, LC

III: 9b Another edition. Paris, 1778. NML

III: 10b An earlier edition. Translated by M. Demours. v. 1-7. 12°. Paris, 1740-1747. UL

III: 10c An Italian translation by Francesco Storti. Saggi ed osservazioni. Venice, 1762. Brunot (5) p. 93.

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[10] The same source indicates also an issue in 1652 but this is obviously a misprint for 1752.

III: 13 Unzer's journal was a popular journal in other ways than in its appeal; there were editions in Hamburg both in 1760 and 1767 by another publisher, and in the 1769 edition which came out under his own auspices, Unzer states that there was a Swedish translation (1763) under the title: **Stockholms Wekoblad** with a preface by Roseen von Rosensteen, as well as a Dutch translation and a translation into Danish at Copenhagen. All these he says appeared without his authorization, even the "new edition" which appeared "a few years ago" in Germany, probably the 1767 edition noted above.

III: 14 This title has been confused with the **Gazette de médecine,** edited by Barbeu Dubourg, the first year as: **Gazette d'Epidaure.** According to UL 4v. were published from 1761 to Dec. 29, 1762. Callisen in his note says that Gruenwald did not become editor until 1790, and that in 1761 the journal was called: **Gazette salutaire** ou Feuille Hebdomadaire composée de la Gazette d'Epidaure, de quelques extraits de J. de Méd . . . , so apparently the **Gazette salutaire** was a separate journal which was later taken over by the prosperous press at Bouillon which under Pierre Rousseau's ownership was printing also the widely distributed **Journal Encyclopédique** as well as other journals. Chereau (7) says the **Gazette d'Epidaure** was continued in 1763, and Delaunay (10) gives the date of first publication as April 1, 1761, notes some pirated editions, and says the last number was printed Jan. 19, 1763. A confusing fact lies in that neither Cheueau or Delaunay mentions the **Gazette salutaire,** and even AS: G 153 which does cite the title, gives holdings in France only for the year 1781.

III: 17 The copy in NLM has no date on the title page, but the printer's notice indicates that it is a post-revolutionary publication, which may, of course, be a reprint. It is apparently not a periodical at all, but a collection of hospital reports for the Hôpital Militaire of St. Venant.

III: 18 K: 1424, Hrsg. Peter Ernst Wilde. Mitau.

III: 19 *Running title*: Geneeskundige Courant, of Weekelyks Bericht. NLM

III: 22 25 C 196 v. 1-10. 4°. 1766-1793.

III: 26 3d ed. London, 1785. NLM

III: 28 Index to v. 1-6 (1794) and 7-12 (1796) compiled by Ch. F. Witting. 23 C 1347

III: 29 Garland (18) says it appeared from Oct. 17, 1772 to Feb., 1773, and calls it the first medical periodical in the new world.

III: 31a Hrsg. G. H. Konigsdorfer, and after v. 8, by Friedr. Diel. K: 1556

III: 35 v. 1-4. 2 ff. Berlin u. Leipzig. UL, K: 1884

III: 38 Dorveaux (13) mentions a predecessor with a similar title: **Etat des médecins et chirurgiens de France,** published at Bouillon in 1772, which, however, he says he was not able to procure for examination.

III: 46c *The same*: Geneeskundig Journal van London. Hrsg. Vanzandyke. Bruges, 1786. L: 21

III: 52 A predecessor is noted in UL: **Neues Taschenbuch für Aerzte und Nichtaerzte.** Jena, c1781.

III: 54 K: 2319, Berlin, 1781. An anthology of selections from this publication was published under the title: **Gemeinnützige Aufsätze für Gesunde und Kranke.** Berlin, 1783.

III: 56 NLM has 13v., 1783-1800, the last only in microfilm.

III: 57 Deel 1-12, 1784-1794. S: 832a, UL

III: 70 Frankfurt u. Leipzig. K: 2559, NLM

III: 72 v. 1-6, 1786-1790. Hrsg. George Levison. *Volume title*: Die deutsche Gesundheits-Zeitung. K: 2700

III: 73 v. 1-6, 1787-1791. K: 3473

III: 75c ——— Actes. Trad. par J. Escude. v. 1. Montpellier, 1792. UL

III: 76 Archiv für die . . . NLM

III: 78 v. 1-5. 1787-1792. Another edition, v. 1-6, 1787-1805. UL. 2d ed. v. 1, 1792. L: 23

III: 79 Facsimile in Yale Journal of Biology, 1933/34, 6: 213-298.

III: 80 V. 2, Leipzig, 1793. K: 2581

III: 94 Only the first volume has title: **Medicinisch-chirurgische Zeitung.** 1790-1856 appeared as **Neue . . .** Index, 1790-1820. UL

III: 95 The second part of the first volume was not published until 1806, although the first part appeared in 1790, and the entire volume bears the imprint 1808. NLM

V: 209 Dyson (16) says it was published with this title only from 1780-1802 (v. 1-23) when under Bucholz' direction it assumed the title: **Taschenbuch für Scheidkünstler und Apotheker,** Weimar, 1803-1819 (v. 24-40) and from 1820-1829 under Trommsdorf's direction as **Trommsdorf's Taschenbuch für Chemiker und Pharmaceuten** (v. 41-50).

V: 212 K: 3065 cites it as: **Magazin für Apotheker, Materialisten und Chemisten,** and the prospectus which appears in the Frankfurter medicinische Wochenschrift (1785, *6*: 173) also gives the title in this form.

V: 213 The first issue is reviewed in the Allgemeine deutsche Bibliothek (1788, *78*: 142) which gives the date as 1786.

VIII: 234 First issue dated 1787, 8 St. issued in all. K: 3244, NLM

VIII: 235 Only the last volume bears the title: Annales. NLM

VIII: 236 K: 227A rejects this as a periodical, and the title also indicates clearly that it is a published correspondence. The second and last issue is taken up almost entirely with a letter of Rahn.

VIII: 237 As above. A letter from Gmelin to Hoffmann.

VIII: 238 Allgemeine deutsche Bibliothek (1791, *101*: 93) gives date of 8th issue as 1789.

IX: 241 K: 2335 says from 1786-1788, the editor was Karl Friedrich Pockels, and from 1791-1793 Salomon Maimon. Pockels also edited another periodical in this category. *See* additions: 50.

XI: 259 *Continues* G: XVIII: *649a.* UL

XI: 262 Hrsg. Christian Friedr. Held. K: 1990

XI: 269 1789-1793. UL

XI: 269a Tradetto di Tedesco . . . da Tommaso Volpi &c. Repertorium der medicinischen Literatur, 1790: 40.

XI: 273 An 8°. edition was published concurrently in Paris in 31v. This medical encyclopedia is a curious compilation, but cannot in any sense be considered a periodical. It is arranged under subject with abstracts of relevant articles which appeared in medical periodicals and even from literary journals, and therefore provides an excellent subject index to some of the medical content of the periodicals of the 17th and early 18th centuries. It was begun by François Planque (1696-1765) and finished after his death by M. J. Goulin. NLM

XI: 276 v. 1-4. 23 C 1403

XI: 278 This periodical might be regarded as one of the first medical indexes, in the sense that it is intermediary between the review journal and the analytical index. Usteri's Repertorium (XI: 311) approaches the goal even closer.

XI: 282 The rest of the title reads: . . . oder Anzeigen und Auszüge aus den neuesten Französischen Werken über Physik, Medicin und Oeconomie. K: 2758

XI: 288 Usteri says it consists of Haller's medical reviews which were printed in the Göttingsche gelehrte Anzeigen (Reportorium der medicinischen Literatur, 1789: 15) and arranged chronologically by the year in which the review appeared, and by subject classification under each year. A similar compilation was made by Heinzmann of Haller's philosophical reviews (Allgemeine deutsche Bibliothek, 1791, *99*: 101).

XI: 291 Covers the years 1780-1783. K: 2859

XI: 302 Contains original papers as well. Allgemeine deutsche Bibliothek, 1791, *101*: 391-2.

XI: 313 T. 1, T. 2, St. 1-2. K: 2770

XI: 317 Hrsg. Friedr. Aug. Weiz. K: 1174

XII: 330 A collection of Mohrenheim's own cases. Schlegel's Neue medicinische Literatur, 1781, *1*: 220.

XII: 345 A weekly medical and review journal containing also original papers; in fact Seiffert (35) calls it "Deutschlands erste medizinische Wochenschrift."

XII: 391 K: 795 cites the same title as Hrsg. Gottlob Ephr. Heumann in 3v. Züllichoviae u. Jena, 1750-1753.

XII: 394 AS: Q 1 cites another issue. Paris, 1763.

XII: 404 *Same as* XI: 312.

XII: 406 Hrsg. Chr. Ehrhart Kapp. K: 1945

XII: 408 Hrsg. Gesner. B: 419b

XII: 417 v. 1-5. 1736-1747. K: 426

XIII: 439 **Academia Electoralis Moguntinae scientiarum utilium quae Erfurt est.**
——— Uebersetzungen und deutsche Abhandlungen. Hrsg. Siegesmund Lebrecht Hadelich. v. 1-2. 8°. Erfurt u. Langensalza, 1762-1763. K: 1229

XIII: 440 **Academia Electoralis scientiarum et elegantiarum letterarum Theodoro-Palatina.**
——— Schriften der Kurfürstlichen deutschen Gesellschaft in Mannheim. Hrsg. Anton Edler v. Klein. v. 1-10. 8°. Mannheim, Frankfurt u. Leipzig, 1787-1794. UL, K: 2996

XIII: 441 **Academia das sciencias de Lisboa.**
——— Almanach de Lisboa. v. 1-29. 24° and 18°. 1782-1826. Girard (20)
——— Ephemerides nauticas. v. 1-10. 4°. Lisboa, 1788-1796. B: 1603
——— Memorias de agricultura. v. 1-2. 1789-1790. UL, Girard (20)
——— Memorias economicas. v. 1-5. Lisboa, 1789-1815. UL

XIII: 442 **Academia scientiarum imperialis Petropolitana.**
——— Akademicheskiia izviestiia. v. 1-8. St. Petersburg, 1779-1781. UL
——— Ezhemiesiachnyia sochineniia i izviestiia o uchenykh dielakh. v. 1-20. St. Petersburg, 1755-1764. UL
——— Kratkoe opisanie kommentariev. Pt. 1. St. Petersburg, 1726 (1728). UL
——— Novyia ezhemiesiachnyia sochineniia. Pt. 1-121. St. Petersburg, 1786-1796. UL
——— Protokoly (Procès verbaux des séances). v. 1-4. St. Petersburg, 1725-1803. UL
——— Sermones. v. 1-4. 4°. St. Petersburg, 1725-1751 (1726-1751). UL
——— Soderzhanie uchenykh razsuzhdenii. v. 1-4. St. Petersburg, 1748-1754. UL

XIII: 443 **Académie royale des sciences des lettres et des beaux arts de Belgique.**
——— Mémoires. v. 1-5. 4°. Bruxelles, 1777-1788. UL, S: 943e

XIII: 445 Index published 1884 covers the Society's publications 1754-1883. Fay (17) gives date of founding as 1705.

XIII: 447 1st ser. v. 1-6, 1715-1735. 2d ser. 1740-1793. 4°. S: 1061e. Deniker (11) lists 7v., the first five covering the years 1715-1737, but did not see either of the last two volumes.

XIII: 448 **Académie des sciences, arts et belles-lettres de Dijon.**
——— Annuaire. Dijon, 1787. 8°. AS: A 94

XIII: 449 A volume also in 1736. S: 1056. Included in Boerhaave's library. *See* Bibliotheca Boerhaaviana. Lugduni, 1739. p. 84.

XIII: 450 1754-1858 *as* Séances publiques. From 1859 *as* Procès verbaux et mémoires. Index, 1754-1786. UL

XIII: 451 **Académie des sciences, belles-lettres et arts de Lyon.**
——— Mémoires couronnés. 8°. Strasbourg, 1788. 25 C 154.

XIII: 453 Letters patent in 1746 (Histoire et mémoires, 1782, *1*: 2) although goes back to a group founded in 1729.

XIII: 454 According to Deniker (11) p. 39-40, issued in 8v. in two series, the first including nos. 1-31 (1727-1767) in one volume, and the second nos. 1-14 (1763-1786) in 7v.

XIII: 460b Published 1885-1900 in 17v. LC

XIII: 463 **Böhmische Gesellschaft der Wissenschaften zu Prag.**
——— Verzeichnis der Mitglieder. Prag, 1784-1884. AS: V 138

XIII: 464 Full title of society: **Kgl. Grossbritt. Churfürst. Braunschweig-Lüneburgische Landwirtschafts-Gesellschaft.** v. 1-4. Celle u. Hannover, 1787-1794. K: 2454

XIII: 465 Issued in two parts, a **Partie étrangère** (v. 1-13, 1755-1779) and a **Partie française** (v. 1-16, 1754-1787). An extremely valuable collection, but by no means limited to reprints, translations and abstracts of society proceedings, since it contains also extracts from many 17th and 18th century journals. Rozier's index to this series in 4v. which indexes not only the **Collection académique** but also the various series of publication issued by the **Académie des sciences de Paris,** is as Rozier states in his preface a "veritable concordance" to much of the scientific work of the 17th and 18th centuries.

XIII: 466 Volume 1 appears not to have been published. K: 1934

XIII: 473 *Continued as*: Nya Handlingar, 1808 ff. First series in two parts: Wetenskaps afdelningen (v. 1-4, 1778-1788) and Witterhets afdelningen (v. 1-4, 1778-1797). UL, S: 604

XIII: 474 **Hollandsche Maatschappij der Wetenschapen te Haarlem.**
——— Programma. No. 1-121. 4° and 8°. Haarlem, 1754-1876. S: 849a

XIII: 475 **Kongelige Dansk Videnskabers Selskab.**
——— Historische Abhandlungen. Hrsg. W. A. Heinze. v. 1-8. 8°. Kiel, Dessau, Copenhagen u. Altona, 1782-1799. 25 C 604b

XIII: 477a **Kongliga Svenska Vetenskapsakademien, Stockholm.**
——— Analecta transalpina seu epitome commentariorum. v. 1-8. 8°. Venezia, 1762. Tr. of Handlingar, 1739-1752. S: 2101

XIII: 485 **Oberlausitzische Gesellschaft der Wissenschaften, Görlitz.**
——— Anzeige von den Sammlungen. St. 1-9. 4°. Görlitz, 1780-1785. K: 1780
——— Verzeichnis der oberlausitzischen Urkunden. v. 1-2 (nos. 1-20). 1799-1824. UL

XIII: 486 Neue literarische Nachrichten in a review lists two other volumes in the first series, v. 2 (1779) and v. 3 (1785). (1786, p. 33 ff.)
——— Magazin. Lund, 1781. 8°. S: 674c

XIII: 487 v. 1-7, 1710-1743. Suppl. issued in 1744. UL

XIII: 487a Another vol. published under the title: Histoire. 8°. Berlin, 1782. 25 C 149i

XIII: 487i This title has been identified with the **Académie des sciences, Paris.** S: 2264

XIII: 488 *Continued by*: Nieuwe Verhandelingen. v. 1-17. 8°. 1822-1854. S: 923c

XIII: 493 One vol. published separately in 1731. From 1741-1791 published 7v. in 10. Another edition of v. 1 in 1748. *Continued by*: Novi commentarii. v. 1-10. 4°. Bononiae, 1834-1849. S: 1807, UL, AS: B 667

XIII: 493b A second vol. appeared in 1782. K: 2411

XIII: 495 1st ser. appeared under the title: Saggi di dissertazione. v. 1-2. 1755-1791 (1755-1800). *Continued as*: Atti. 1845 ff. UL, S: 1974

XIII: 497 **Reale Accademia di scienze, belle lettere ed arte di Mantova.**
——— Annales avec des notices statistiques concernant l'agriculture et la médecine. v. 1-5. 4°. Turin, 1787-1818. S: 2069

XIII: 498 *Same as*: Collection Académique, partie étrangère (G: XIII: 465), the first 3v. of which were published under the title: Recueil de mémoires.

XIII: 499 L: 16 also cites a report of the secretary. 8°. London, 1776.

XIII: 500 **Royal Dublin Society.** Weekly observations. Kirpatrick (28) says these papers were printed weekly in the Dublin News Letter, and were reprinted by Richard Reilly as: Dublin Society's Weekly Observations, 1736-1737. Dublin, 1734. He also mentions the Proceedings.
——— Proceedings. v. 1-111. 8°. Dublin, 1764-1775. S: 86b

XIII: 504 v. 1-25, 1782-1855. *Also known as*: **Società italiana delle doiquarante,** which also had its seat at Rome.

XIII: 514 v. 1-24, 1706-1788. Deniker (11). 2d ed. of Mémoires (v. 1-2, 1771-1782, 4°) covers papers presented from 1706-1745, many of which appeared originally in the Mémoires of the **Académie des sciences de Paris.** S: 1241b

XIV: 527 v. 1, 1789. S: 2584

XIV: 530 A retrospective bibliography published in 1846.

XIV: 533 1734-1736. K: 399

XIV: 541 1788-1796. K: 2607

XIV: 550 Like **XIV: 537** and other titles in the list should be considered a book issued in parts. A popular title which appeared in many editions in the 18th century. In addition to those noted, an edition in English in 7v. 12°. London, 1763-1776: Spectacle de la Nature; or, Nature Displayed.

XV: 552 Began 1791. A successor to: Magazin für die Botanik (G: XV: 564). K: 3475

XV: 557 Hrsg. Georg Anton Weizenbeck. K: 3026

XV: 558 Hoppe was succeeded by August Emanuel Furnrohr as editor; a 23rd vol. in the series was published in 1849, containing Hoppe's autobiography. K: 3172

XVII: 577 Griffin (24) describes this series as a book issued in parts.

XVIII: 585 Hrsg. Nathanael Gotfried Leske. A translation of the Philosophical Transactions. *See also* G: II: **4m.** K: 1981

XVIII: 592 In the main an author and subject index to the Allgemeine Literatur-Zeitung from 1785 to 1800 and to reviews appearing in other critical journals, i. e. a sort of Book Review Index. LC

XVIII: 593 Beutler's compilation is of another kind. It consists of two parts, the first a list of periodicals which appeared from 1700-1790, and the second a subject index to some eight German periodicals of which only one appears to contain any material of scientific or medical interest. Copy in Newberry Library, Chicago.

XVIII: 604 This is Beckman's encyclopedic history of inventions which appeared in other editions as well. Clow (8) cites an edition in English: History of Inventions. London, 1797.

XVIII: 605 K: 185A rejects this title but it does not differ either in format or in content from a great many other titles in his list.

XVIII: 606 This is definitely a collection of Ehrhardt's own writings, *also included in* B: 915, S: 2777, as well as UL

XVIII: 612 1749-1751. From 1750 published in Frankfurt a O. K: 575

XVIII: 615 Bernische . . .

XVIII: 620 v. 25 and 50 are indexes.

XVIII: 625 *Continued as*: G: XVIII: **705**

XVIII: 628 *Preceded by*: Consultatio de universali commercio litterario ad rei medicae et scientiae naturalis incrementum inter horum studiorum amatores instituendo. 2nos. 4°. Norimbergae, 1730. B: 1340, S: 3155

XVIII: 629 According to Duner (15) edited from 1715-1718 by Emanuel Swedenborg Provided a place of publication for the **Collegium Curiosorum,** a predecessor of the **R. Societas Scientiarum Upsaliensis.**

XVIII: 632 *Continued as*: Zuverlässige Nachrichten. Leipzig, 1740 ff. K: 511

XVIII: 684 The celebrated "Journal de Trévoux."

XVIII: 694 Hrsg. Christlob Mylius. v. 1-3. K: 745

XVIII: 697 A similar title is cited as being published in 1770. *See* addenda: **129.**

XVIII: 700 Same title with same editor published in Schwerin in 1770. *See* addenda: **132.**

XVIII: 702 1775-1781. This title started as a project to translate Bromare's dictionary. UL

XVIII: 705 Vol. 4 appeared also as v. 4 of Crell's Auswahl aller eigenthümlicher Abhandlungen. *See* addenda: **82.**

XVIII: 714 A German translation: Sammlung brauchbahrer Abhandlungen aus Roziers Beobachtungen über die Natur und Kunst. Hrsg. Wünsch. v. 1-2. 8°. Leipzig, 1775-1776. B: 4183, S: 3010

XVIII: 747 Hrsg. Karl Gottlieb v. Windisch. K: 3157

XVIII: 752 Lang (30) says it is a continuation of: Freymuthige Nachrichten.

XVIII: 755 Hrsg. Balth. Haug. K: 2285

ABBREVIATIONS

AS Académie des Sciences, Paris. *Inventaire des périodiques scientifiques.* Paris, 1924-1929.

B Bolton, H. C. *A Catalogue of the Scientific and Technical Periodicals.* Washington, 1897.

C Callisen, A. C. P. *Medicinisches Schriftsteller Lexicon.* Copenhagen, 1835-37.

G Garrison (19)

K Kirchner (27)

L LeFanu, W. R. "British periodicals of medicine." *Bull. Hist. Med.*, 1937, *5*: 735-761, 827-855; *6*: 614-648.

LC Library of Congress.

NLM National Library of Medicine.

S Scudder, S. H. *Catalogue of Scientific Serials.* Cambridge, Mass., 1879.

SG *Index Catalogue of the Surgeon General's Library.* Washington, D. C., 1880-

UL *Union List of Serials.* 2d ed. New York, 1943.

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MEDICO-HISTORICAL NEWS AND ACTIVITIES

ANNOUNCEMENTS

AMERICAN ASSOCIATION FOR THE HISTORY OF MEDICINE

Thirty-Second Annual Meeting: Cleveland, May 21-23, 1959

The Thirty-second Annual Meeting of the American Association for the History of Medicine will be held in Cleveland, Ohio, 21-23 May, 1959. The Association's hosts will be the Cleveland Medical Library Association, the Cleveland Health Museum, and the Handerson Medical History Society. Dr. Bruno Gebhard is chairman of the Committee for Local Arrangements. The Wade Park Manor will be the headquarters hotel. The Berea Bach Festival at Baldwin-Wallace College has invited the members of the Association to be guests at the performance of the B Minor Mass on Saturday, May 23.

Members who wish to present papers are asked to send an abstract of not less than five hundred words to the Chairman of the Program Committee, Elizabeth H. Thomson (Department of the History of Medicine, 333 Cedar Street, New Haven 11, Connecticut), no later than 1 March, 1959.

NATIONAL NEWS

Benjamin Waterhouse Medical History Society

The Society announces a meeting for October 20, 1958, at which John J. Byrne will speak on "Medicine at Plymouth Plantation."

Dexter Award in the History of Chemistry

Miss Eva V. Armstrong, former curator of the Edgar Fahs Smith Memorial Library, University of Pennsylvania, has been selected for the third annual Dexter Chemical Corp. Award in the history of chemistry. The Award, administered by the American Chemical Society's Division of History of Chemistry, will be presented September 9, 1958, during the Society's annual convention in Chicago.

Kansas

The Department of the History of Medicine (University of Kansas Medical Center), possesses the 1957 Harvey film (16 mm.; sound and color), sponsored by the Royal College of Physicians of London. It is available for loan and has already been sent to Cornell, Harvard, Johns Hopkins, Yale, and the University of Wisconsin (From *News* to the Friends of the Library of the History of Medicine).

Samuel Fuller

The Dr. Samuel Fuller 1627 House Committee seeks to honor with a permanent memorial the famous first resident physician of New England who spent thirteen years of his life ministering to the Pilgrims and their friends, from Cape Cod to Cape Ann, and of whom Governor Bradford said: "A man godly, and forward to do good, being much missed after his death." The Committee has set itself a

goal of $25,000 for the reconstruction and proper appointment of the Dr. Samuel Fuller House in the replica of Plymouth in 1627 in the Pilgrim Village of Plimouth Plantation, now being developed two miles south of Plymouth's business center. Dr. H. H. Hamilton, Plymouth, Mass., is Chairman of the Committee.

U. S. Department of Agriculture Graduate School

Among the courses offered at the National Institutes of Health in the Fall, 1958, there will be a course by Morris Leikind on "History of Medicine and Medical Research."

Wisconsin

The University of Wisconsin announces the appointment of Dr. Gernot B. Rath, of Bonn University, Germany, as visiting professor of history of medicine for the second semester of 1958-59. Dr. Rath studied medicine at the Universities of Marburg, Hamburg, Berlin, and Bonn. He obtained the M. D. degree at Bonn in 1948, and turned then to the history of epidemics, anatomy in the Middle Ages, and medical writing in the 16th and 17th centuries.

Yale

Dr. Kenneth D. Keele, F.R.C.P., Consultant Physician to the Ashford and Staines Hospitals, Middlesex, England, has been appointed Visiting Professor of the History of Medicine at Yale University from 1 October through 31 December 1958. While at Yale he will give a series of nine lectures on "The History of Medical Research" and also conduct a seminar course.

Dr. Keele is Honorary Secretary of the History of Medicine Section of the Royal Society of Medicine. In addition to a number of papers in medical and historical journals, Dr. Keele is the author of *Leonardo da Vinci on the Movement of the Heart* (1952) and *Anatomies of Pain* (1957).

NEWS FROM ABROAD

England

At a ceremony held on 18 July, 1958 in the Great Hall of the Royal College of Surgeons of England, Dr. J. Menzies Campbell, F. R. S. E. (Honorary Member, The American Academy of the History of Dentistry), of Glasgow, was, on the unanimous recommendation of the Board of Faculty and of the Council of the College, in recognition of his work as a dental historian, admitted, along with Sir Henry Souttar and Mr. Ralph E. Huffam, an *Honorary* Fellow in Dental Surgery.

BULLETIN OF THE HISTORY OF MEDICINE

Because of his retirement from The Johns Hopkins University, Dr. Richard H. Shryock has resigned from the Advisory Editorial Board of the Bulletin. *The Johns Hopkins University has appointed Dr. A. Earl Walker, Professor of Neurosurgery, to serve on the Board.*

BOOK REVIEWS

CHARLES SINGER. *A Short History of Anatomy and Physiology from the Greeks to Harvey.* [New Edition of *The Evolution of Anatomy.*] New York: Dover Publications Inc., 1957. xii + 209 pp. Ill. Paperbound, $1.75.

The substance of Charles Singer's Fitzpatrick Lectures delivered before *The Royal College of Physicians of London* during 1923 and 1924 was published in 1925 under the title *The Evolution of Anatomy: A Short History of Anatomical and Physiological Discovery to Harvey* (New York: A. A. Knopf. $4.00). Reviewers of the original edition recognized the merit of the book and praised it highly. Shortly after its appearance, the work went out of print and soon thereafter became a collector's item. The used book catalogues reflect the continued demand for copies. In 1953 a New York dealer offered a copy for $10 and in 1955 another copy for $12; a London dealer listed a copy in 1955 for $18.20. Further indication of the stature achieved by Dr. Singer's work is its listing in Garrison-Morton as item 454 (2nd edition).

Now the book has become available in inexpensive paperbound format. Text and illustrations are reproduced with excellent clarity by a photo-offset lithographic process. Although there is some loss of detail in certain of the 20 plates, their usefulness is not impaired. The binding is designed attractively and seems sufficiently durable to withstand a normal amount of usage.

Dr. Singer has written a brief preface for this "second edition" in which he expresses regret that other more detailed histories of the subject have not been published since his book first appeared. He points out that many new studies and translations concerning the major figures in the history of anatomy have been printed in English in recent years. Dr. Singer modestly omits mentioning that he has contributed significantly to this enrichment of the history of anatomy with his own translations of Galen and Vesalius. In the preface to the original edition, the author promised another work dealing with the new physiological movement and the later history of anatomy. His new preface indicates that someone else must undertake such a work, so Dr. Singer's admirers must cease to hope for a sequel.

Since the terms "revision" and "new edition" are applied to this work, the reviewer should point out to potential readers that very few changes have been made in the text and none in the illustrations. In addition to the new preface, this reviewer detected four changes in the text: the date of the 3rd Dynasty of Egypt is changed from c. 4500 B. C. to c. 2900 B. C. (p. 7), the date of the Code of Hammurabi is altered from c. 2000 B. C. to c. 1950 B. C. (p. 7), the date of Homer is reduced from c. 1000 B. C. to c. 900 B. C. (p. 9), and the phrase referring to Leonardo's wax castings of the cerebral ventricles is changed from "which give a good idea of their form" to "these are the first known attempts at anatomical injection" (p. 92).

Unfortunately, the usual printer's errors and minor slip-ups in dates to be found in most first editions, are not corrected in this "corrected" edition. Many of these errors are not serious but they should be noted for the sake of the reader who wishes to correct his copy of the book. On p. 15 Plato (427-367 B. C., Plate) should

read Plato (427-347 B. C., Plate II), on p. 29 change *prostrate* to *prostate*, on p. 132 *middle cerebral peduncles* should be *middle cerebellar peduncles*, and on p. 167 T. Bartholin (1516-80) should be changed to T. Bartholin (1616-80) and Brassavola (1550-70) should read Brassavola (1500-55).

This is an important book for medical students as well as physicians and historians of medicine. The medical student starting his study of anatomy can now afford to add this classic to his library and by reading it along with his anatomical texts can enrich enormously his understanding of his work. The student-physician will also do himself a valuable favor by adding Dr. Singer's book to his library.

S. R. Bruesch

Terrence East. *The Story of Heart Disease.* The Fitzpatrick Lectures for 1956 and 1957 given before The Royal College of Physicians of London. London: William Dawson and Sons Limited, 1957. 148 pp. Ill. 30 s.

The story of heart disease is ever fascinating, and Terrence East adds to its lustre. In these lectures he selected four topics and considered each one separately; the first concerns diagnosis, the second morbid anatomy, the third coronary circulation, and the fourth therapeutics.

In delving into the history of a subject one has the choice of covering one facet of it leisurely or of galloping through the field at a hectic pace, hitting the high spots. East chose the latter, but his pace is an interesting one, breathtaking as it may seem in the first lecture on diagnosis, and he slows down considerably in the last three lectures.

Many a columnist in newspapers and magazines knows that writing must be sprinkled liberally with names, old names, new names, and more names, but all recognizable to some degree by the reader. East has done this, and very neatly indeed, in the book. This reviewer, probably more of a score keeper than a medical historian, listed 112 different names in the 50 pages of the first lecture, that on diagnosis. They have to do with many topics; the pulse, mechanical devices and graphic records, blood pressure, methods of physical diagnosis, heart sounds and murmurs, heart size as determined by x-ray, and electrocardiography.

Most of the names are almost immediately familiar, although it takes a little thought to place some of them. One could play quite a quiz game with these alone. A name that intrigued me particularly, and one entirely foreign to me, is that of O'Brien Bellingham of Dublin (page 40). Such a small clue is enough to send one off on a historical excursion in search of more information, and perhaps even a report, on the doctor and man behind such a name.

The facts and the dates are also all there, in this little book, small only in size, not in stature. Only two points puzzled this reviewer. One was on page 43, where East states that F. H. Williams of Boston was one of the first to apply the use of x-ray to the study of the heart in 1896. I was of the opinion that Albert Abrams, later of international notoriety, did this first, but in checking this point I find that Abrams' article was published in 1897.

The other point, under the coronary circulation and its disorders on pages 118

and 119, is this. East states that the paper of J. B. Herrick in 1912 (on coronary thrombosis) brought the matter to general attention. However, Herrick himself, over the years, often told the story of how this 1912 article "fell like a dud," and that it wasn't until six years later, in about 1918, after he presented a second article on the subject, that it began to be noticed.

The lists of basic references at the end of each lecture are very good, but one misses the customary index at the end of the volume.

Both East and the publisher are to be highly commended for presenting such readable material under the simple title of "The Story of Heart Disease."

NATHAN FLAXMAN

JUAN B. LASTRES. *El Pensamiento de William Harvey en la Medicina Peruana.* Lima: Editorial San Marcos, 1957; 100 pp. Ill.

This study was undertaken in commemoration of the tercentenary of the death of William Harvey, June 3, 1657. The University of San Marcos founded in 1551, with its chair of Medicine in 1634, kept contact with Spanish universities and, when possible, those of western Europe. Dr. Lastres presents the background of medical and anatomical progress in Europe in the 16th and 17th centuries. He notes that successive Protomedicos, who were also professors of medicine in San Marcos, were cognizant of developments in Bologna, Salerno, and Salamanca. They also did research on the epidemics current in Peru.

Two chapters of the book describe the studies and achievements of William Harvey and the Europe in which he devised his theory of circulation, published in 1628. Although the theory of circulation was previously known to many in Lima, the man who brought the Harveian concept to Peru was Dr. Federico Bottoni (1670-1745), who came with the Viceroy Santo Buono in 1716.

Dr. Bottoni had studied at Salerno and later in Spain and was familiar with the published works of Paracelsus, Malpighi, and Harvey. In Lima he was personal physician to the Viceroy and, being a linguist, was interpreter for the Inquisition. He spent much time in reading and eventually produced his most important book, *Evidencia de la circulación de la sangre,* published in Lima in 1723. His object was to "announce the great truth to the learned professors of San Marcos." The book was well received, winning praise and publicity from Don Pedro de Peralta, an influential Limeñan. Dr. Lastres outlines the contents of this book, indicating its sources in Harvey and demonstrating its importance to Peruvian medicine. He considers Bottoni one of the great physicians of the Peruvian past.

GEORGIANNA S. GITTINGER

BERNARD ASCHNER. *Arthritis Can Be Cured.* New York: The Julian Press, Inc., 1957. xvi + 234 pp. $3.95.

The purpose of the book can best be expressed in terms of the preface written by Dr. Lawrence W. Smith: "In a number of encyclopedic scientific volumes on Constitutional Therapy, the author, Dr. Bernard Aschner, has shared his knowledge and experience with the medical profession. In these pages he has made this information available in simple form to the sufferers from arthritis, not with the idea of advocating self-diagnosis and treatment, but so that the patient can, to a degree at least, understand his problem, and seek the help he needs from his doctor." In contrast with the conventional text arrangements, the subject matter is not preceded but succeeded by a rather extensive historical chapter. This reversal of method is intelligible in the light of Aschner's approach towards medical history which he wants to bring into subservient relation to the primary goal and ultimate meaning of medicine, i. e., cure. Indeed the opening chapter of the "Historical Survey" (comprising 84 pages out of 233) carries the significant title: "The history of medicine as an indispensable source of knowledge to the practicing physician" (p. 149). Though the chapter centers around the main theme, i. e., arthritis, its pathogenesis, different types and variants, cure and prevention, it refers, more than once, to the medical doctrines of the past, the great figures of medical history, their lasting contributions or detrimental influences, among which Virchow's cellular pathology and the shift from humoral pathology to the pathology of the solid cells stand out in Aschner's thought as "the great medical revolution" ultimately responsible for therapeutic scepticism and nihilism. But there are also other dialectics emerging from Aschner's attempt to trace the history of therapies. These dialectics are embodied in the terms localistic methods versus general treatment, the former culminating in "modern overspecialization." The dialectics drawn between the empirical methods (advocated by Aschner) and the "hyperscientific approach" are repeatedly brought into focus ("the urge *to know*, to recognize, to analyze, to explain, and to diagnose too often overpowers the urge *to help* the sick by any means whatever which should be the primary goal of medicine": p. 171). If we wish to improve our practical results, which according to the author are far from being satisfactory today, we must reanimate, Aschner concludes, the successful methods of earlier medical systems and combine them with modern diagnosis and technic (p. 180). The reviewer who has been witnessing with sympathy Aschner's dedication and honest striving ever since the stormy days of his early onslaught on "school medicine" cannot but welcome this final thesis which might impress his readers as a compromise, and which is no more, but also no less, than the constructive solution of crisis and upheaval in the history of human thought and action; the author formulates his own setting in that very same field of human knowledge (i. e., contemporary medicine) which he had once left behind. Nothing stands in the way any longer to any unprejudiced physician's attempt to consider and to retest Aschner's surprising results with the application of early and forgotten therapeutical methods.

WALTHER RIESE

BERTON ROUECHÉ. *The Incurable Wound,* and Further Narratives of Medical Detection. Boston, Toronto: Little Brown and Company, 1958. 177 pp. $3.50.

The Incurable Wound is a second set of Roueché's factual accounts of medical detection work, published originally as separate pieces in the *New Yorker*. Although possibly not matching his first collection of similar nature (*Eleven Blue Men*, 1953) in variety and overall interest, the author has again succeeded in combining excellent story-telling with authenticity. Physicians, public health persons, and laboratory researchers who have had an opportunity to observe him in the preparation of one of these stories attest to the care with which details are investigated. The result has been in several instances the best available account of particular diseases. This is said to have been the case for some time with regard to his story on rickettsial pox. His graphic description of symptoms and other features of disease could profitably be imitated by medical writers. Several years ago we included his *Eleven Blue Men* on our "Suggested Reading List" for medical students, and *The Incurable Wound* will be added. A conspicuous historical perspective is evident. Some of the stories are excellent medical history, with, of course, current pertinence.

In many of his narratives Roueché has naturally had to use pseudonyms for patients and sometimes for institutions and professional personnel. The "Whitestone Memorial" is a hospital which has more than its expected share of the "interesting cases" the author describes.

The hero of the stories is more often the epidemiologist or public health official than the practicing physician.

The Incurable Wound is dedicated to Lewis Thomas, formerly Professor of Pathology in New York University, recently appointed Professor of Medicine in the same institution.

VICTOR A. MCKUSICK

W. R. BETT. *Sir John Bland-Sutton, 1855-1936.* Foreword by Lord Webb-Johnson. Edinburgh and London: E. & S. Livingstone (Baltimore: Williams & Wilkins), 1956. viii + 100 pp. Ill. $4.75.

Bland-Sutton was an ambitious and many faceted man whose energies matched his great abilities. Pioneer in gynecological surgery, life-long student of comparative anatomy, contributor to dental pathology, author of books on gynecology, on the anatomy of ligaments, on evolution, on osteology, on tumors, on gallstones, his interests were wide and his views frequently original. Ambitious for renown, and the rewards of renown, he succeeded as fully as he could have wished, even to the achievement of the Presidency of the Royal College of Surgeons.

This little book contains an outline of his life and achievements with numerous brief anecdotes, not the least interesting aspect being the inevitable account of Bland-Sutton's relationships to the great of his day: Kipling, with whom he was particularly friendly, Lawson Tait, Henry Morris, Pasteur, Ellen Terry, Frederick Treves and others.

The biographical method of dealing in turn with each of his principal activities and treating each of these chronologically leads to some temporal confusion on

the part of the reader who must scan back and forth across the years from chapter to chapter. The book is not sufficiently detailed to serve as an authoritative text, but the chapter division does have the merit of making reference easy to particular items on each matter.

MARK M. RAVITCH

CARLOS MARTÍNEZ DURÁN. *Tiempo y Substancia del Estudiante Eterno.* Guatemala: Imprenta Universitaria, 1956. xiv + 196 pp. Ill.

Dr. Carlos Martínez Durán is singularly qualified to write of the eternal student, for it is the student in undergraduate and professional life whom he celebrates. He celebrates him in reminiscences of his own youth and academic career, rooted in the stormy history of the University of San Carlos of Guatemala of which he has been student, professor, Rector (1945). He celebrates him further in the series of laudatory essays, funeral orations and congratulatory messages, which follow the main part of the book. In all the figures he praises, it is the eternal student whom he reveres, the quester after truth, the leader and inspirer and teacher of younger generations of similar spirits. For teaching is for Carlos Martínez Durán the best road to self-education, and self-education requires a whole life-time.

The emancipation of education, and particularly of medical education, forms the *leitmotiv* of the volume, and there emerges from these pages Martínez Durán's ideal physician whose administrations are as much to the spirits, as to the bodies of his patients, and whose work is a labor of love in the tradition of Maimonides and Saint Bernard.

C. LILIAN TEMKIN

VASCO RONCHI. *Optics, the Science of Vision.* Translated from the Italian and revised by Edward Rosen. New York: New York University Press, 1957. ix + 360 pp. Ill. $10.00.

Professor Ronchi has provided a rich collection of stimulating ideas on optics, with particular reference to vision, and has presented it in a stimulating historical perspective. The historical section gives a clear description of the evolution of ideas on the subject, with good illustrations, although there is no attempt at completeness or at presenting sources of information. This work can be warmly recommended to those interested in a modern account of classical optics and its limitations. However, the book suffers from a lack of any bibliography or reference to the authors of many of the ideas presented, and the section on the neurophysiological aspects of vision is poor.

LAWRENCE KRUGER

THE BULLETIN RECENTLY RECEIVED*

Gerald L. Baum. *Samuel Taylor Darling.* n. p., 1958. The address of the author is: Gerald L. Baum, M. D., 3820 Dakota Avenue, Cincinnati 29, Ohio.

Claude Bernard. *An Introduction to the Study of Experimental Medicine.* Translated by Henry Copley Green. With an Introduction by Lawrence J. Henderson. With a new Foreword by I. Bernard Cohen. New York: Dover Publications, Inc. xxv + 226 pp. $1.50.

Brompton Hospital Reports. Vol. xxvi, 1957, London: Lloyd-Luke (Medical Books) Ltd. x + 308 pp. Ill. 15 shillings.

J. Menzies Campbell. *From a Trade to a Profession.* Byways in Dental History. With a foreword by Sir William Fish. Collected and Reprinted for Private Circulation, 1958. xi + 254 pp. Ill.

Lord Cohen of Birkenhead. *Sherrington,* Physiologist, Philosopher, and Poet. (The Sherrington Lectures, IV) Springfield, Illinois: Charles C Thomas, Publisher, 1958. xiv + 108 pp. Ill. $3.50.

John Duffy (Editor). The Rudolph Matas *History of Medicine in Louisiana,* Vol. I. Published for The Rudolph Matas Trust Fund by Louisiana State University Press, 1958. xviii + 522 pp. Ill. $10.00.

Albert Esser. *Cäsar und die Julisch-Claudischen Kaiser im biologisch-ärztlichen Blickfeld.* Leiden: E. J. Brill, 1958. xii + 270 pp. Ill. 45 guilders. (*Janus,* Suppléments, Volume I).

Heinz Goerke. *Die Deutsch—Schwedischen Beziehungen in der Medizin des achtzehnten Jahrhunderts.* Copenhagen: Munksgaard, 1958. 185 pp. D. kr. 40.

A. M. Lassek. *Human Dissection,* Its Drama and Struggle. Springfield, Illinois: Charles C Thomas, Publisher, 1958. x + 310 pp. Ill. $6.50.

W. R. LeFanu. "Jacques de Cahaignes and His Eulogies of the Citizens of Caen. Presidential Address Delivered at the Annual Meeting of the Society on 8 May 1957." *Proceedings of the Huguenot Society of London,* vol. XIX, No. 5, pp. 199-209.

Medical Department, United States Army. *Cold Injury, Ground Type.* By Colonel Tom F. Whayne, MC, USA (Ret.) and Michael E. DeBakey, M. D. Office of the Surgeon General, Department of the Army, Washington, D. C., 1958. xxi + 570 pp. Ill. $6.25. [For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.]

J. Collins Warren. *To Work in the Vineyard of Surgery.* The Reminiscences of J. Collins Warren (1842-1917). Edited with appendices, notes and comments, by Edward D. Churchill. Cambridge, Massachusetts: Harvard University Press, 1958. xii + 288 pp. $6.00.

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* The *Bulletin* reserves freedom of decision as to the publications to be listed in this section. Items received, other than those assigned for review, are ultimately incorporated into the collection of the Institute of the History of Medicine.

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